

Brochures

concerning

DOMINION

PROTECTIVE

SYSTEMS

For the consideration of

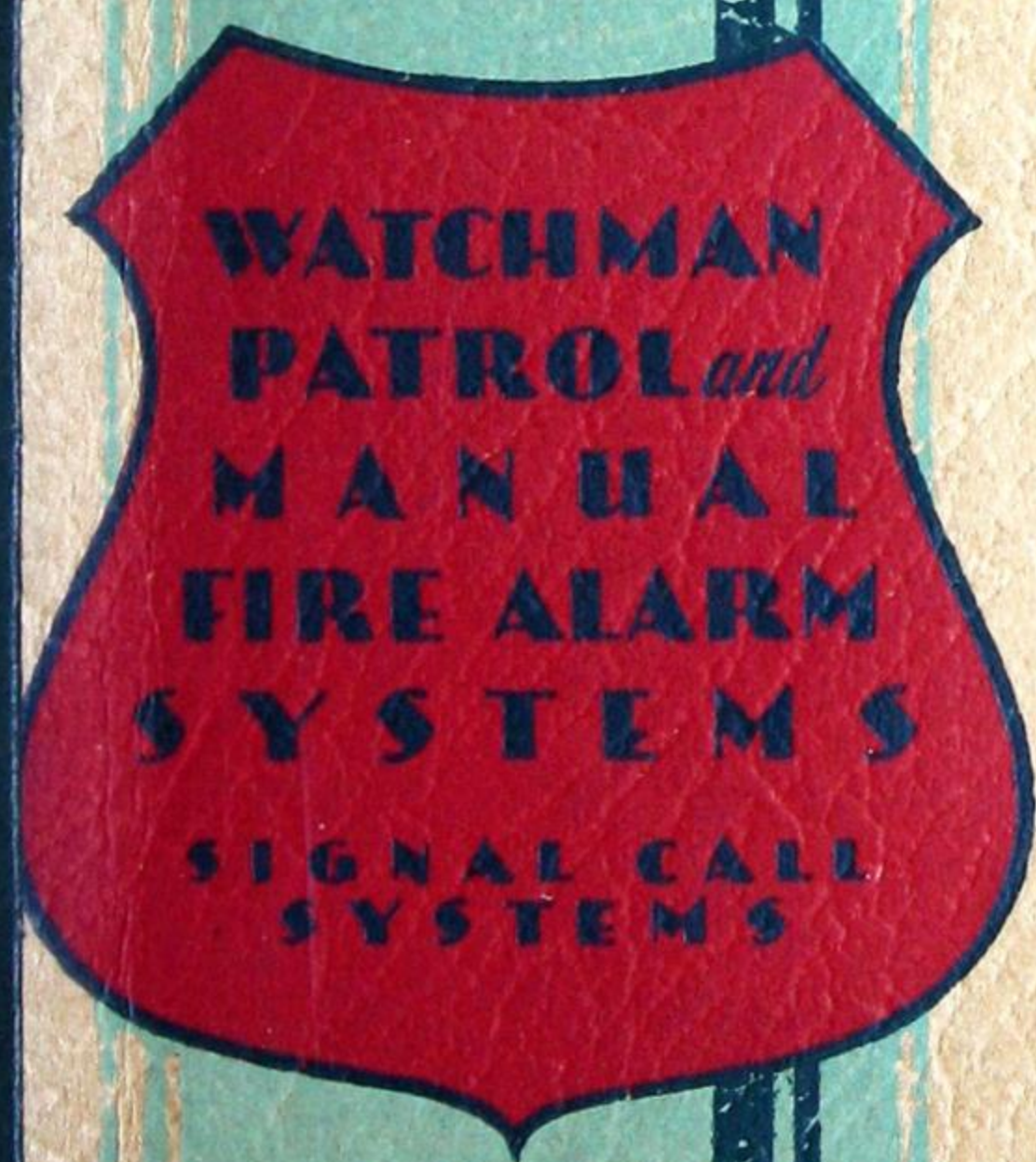








# DOMINION PROTECTIVE SYSTEMS



**DOMINION ELECTRIC PROTECTION  
COMPANY**

TORONTO, MONTREAL, QUEBEC, OTTAWA  
HAMILTON, LONDON, WINNIPEG.



## TO ARCHITECTS:

**O**UR Engineering Department will gladly co-operate with the architectural profession in preparing designs, estimates and specifications for the installation of our standard systems, modifications thereof or to meet special or unusual situations. In planning new buildings it is well for Architects to consult with the Dominion Electric Protection Company before the erection of such buildings where Dominion Electric Protective Systems are to be installed, so that the necessary conduits and wiring can be provided.

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*"A little fire is quickly trodden out,  
which being suffered, rivers cannot  
quench."*

# WATCHMAN PATROL *and* MANUAL FIRE ALARM SYSTEMS

SIGNAL CALL SYSTEM



THE Dominion Electric Protection Company manufactures, installs and operates Electric Signalling Systems for the protection of property from fire and theft. These systems include Watchman Patrol and Manual Fire Alarms, Automatic Fire Alarm Systems, Sprinkler Supervisory Systems, and Burglar Alarm Systems.

Central Stations are maintained in the larger cities of Canada where staffs of experienced officers are on duty day and night to answer alarms from premises equipped with these systems.

This booklet describes the Watchman Patrol and Manual Fire Alarm Systems and Service, as well as our Signal Call Paging System. If information is desired regarding our other systems, please communicate with any of our offices or with the head office of the Company located at 92 Adelaide Street West, Toronto, Ontario.

In cities and towns where Central Station Service is not available, local or self-contained systems can be installed similar to the systems herein described. In place of being connected to a D.E.P. Central Station, such premises are connected to the local Fire or Police Department or some other central point as the conditions may require.



*Watchman  
Patrol and  
Manual  
Fire Alarm  
Services*



HERE are two Watchman Patrol Systems—one known as the Watchman Supervisory and Manual Fire Alarm and the other the Watchman Compulsory Tour. A full detailed description of each system will be found in this book.

Both systems are designed to serve a two-fold purpose—provide a private fire alarm system available in case of emergency and efficient supervision of the movements of the night watchmen.

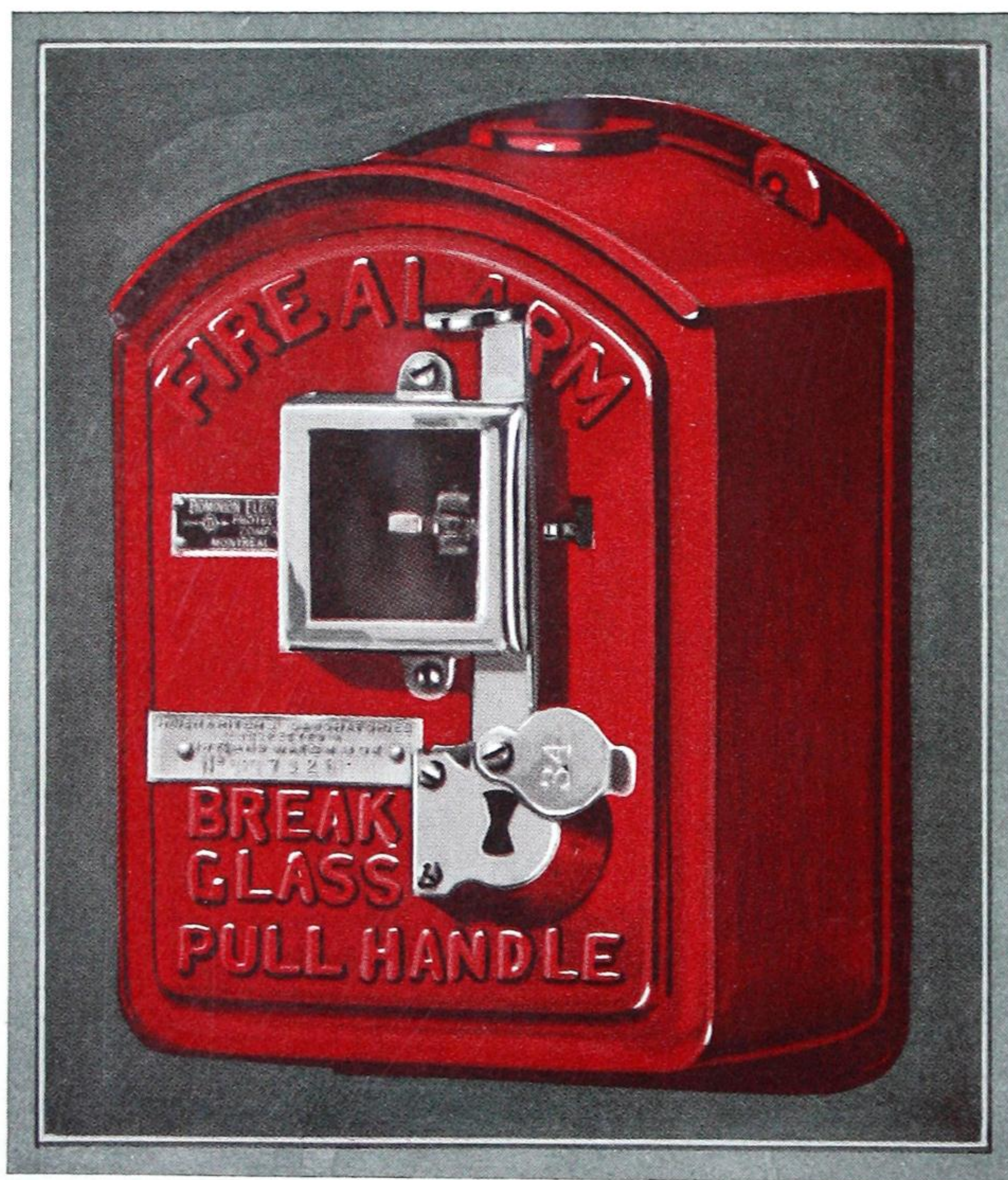
The importance of notifying the Fire Department immediately a blaze is discovered is strongly advocated by all organizations interested in fire protection. Statistics tell us that most fires start from a small blaze and the time to stop fire is in the beginning. Many destructive fires have occurred that could have been prevented if prompt notification had been given to the Fire Department.

It is impossible to appreciate the importance also of properly patrolling valuable property during the closed period—nights, Sundays and holidays.

Properties are open for business or manufacturing purposes ranging generally from eight to twelve hours daily. Persons are in or on the property for approximately 2,000 hours during the entire year out of a total of 8,760 hours, or about 32% of the time. Therefore, for 68% of the time most properties are left alone—unless provided with a watchman.

A watchman is primarily employed to guard valuable property from fire and theft. Even though this responsibility is placed on a single man during 68% of the time, a great many owners make no provision for requiring their watchman to properly carry out his duties nor is he even provided with proper means for summoning assistance quickly in the case of emergency—fire or theft.

A watchman may be efficient, faithful and ever ready to look after the property owner's interests in the best possible manner. Yet



**FIRE ALARM BOX**

*Fire alarm is transmitted to the D.E.P. Central Station and Fire Department by breaking glass and pulling down lever. Available for service every hour of day and night.*



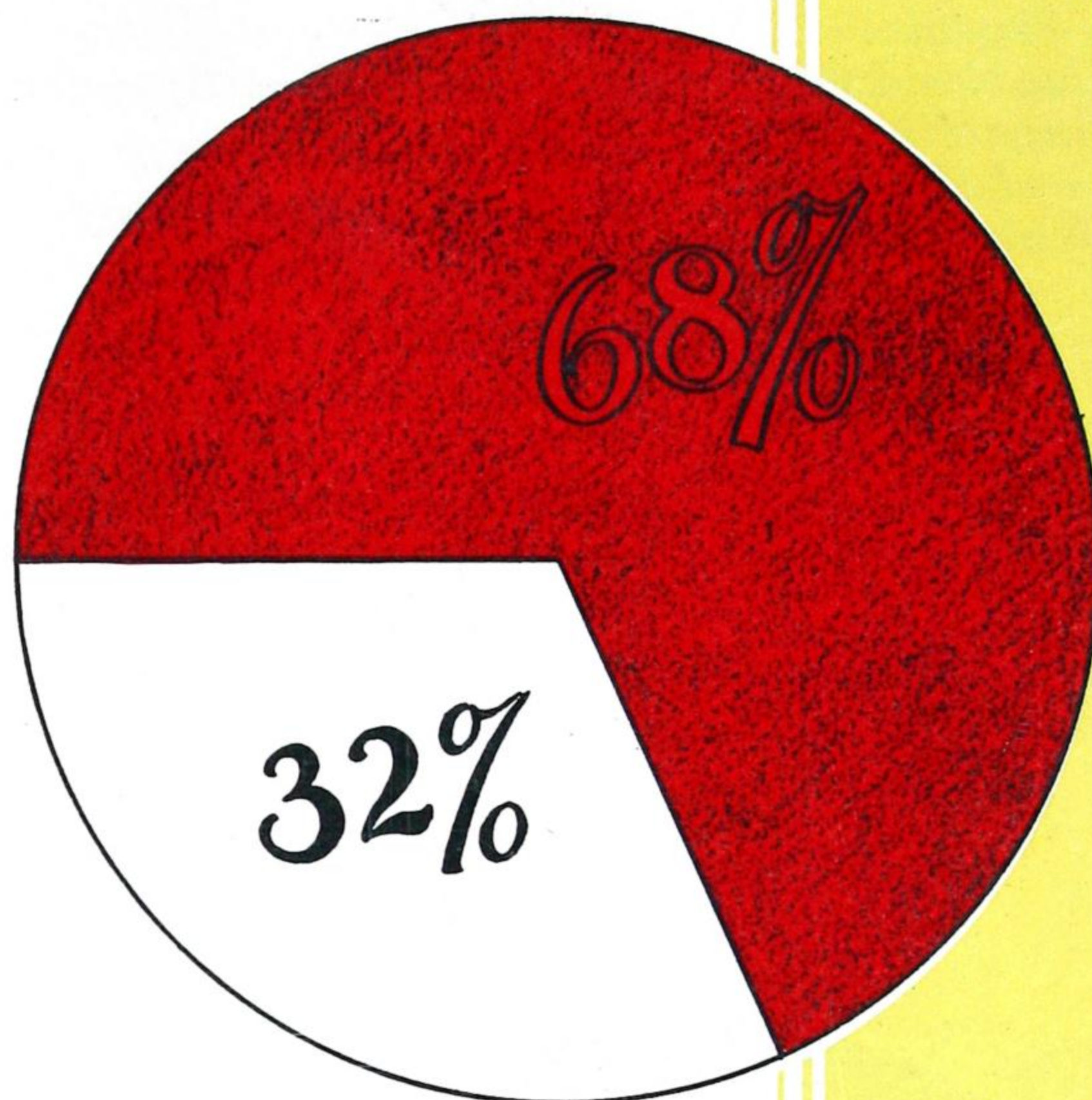
he is powerless against the many unseen agencies that constantly threaten him. He may be attacked by thieves; he may injure himself; illness may befall him; in every case property is exposed to damage and loss.

Then there is the other type of watchman who is unfaithful in the performance of his duties; is inefficient or untrustworthy. All watchmen, not only need to be supervised against their own inherent weaknesses, but should also be protected at all times against outside agencies by an unfailing service that is ever on guard.

Unfailing service is obtained through the installation of either of our Watchman Patrol and Manual Fire Alarm Systems and connected with one of our Central Stations. Hundreds of representative firms already employ this service for checking their watchmen. The following excuses for one year of failures of night watchmen to signal our Central Stations show how necessary is an outside check on all night watchmen:

Asleep.....	1,596
Forgot.....	5,045
Watchman had left premises.....	321
Busy at other work.....	3,620
Illness.....	132
Time wrong, watch stopped, etc.....	497
Refused to give reason.....	725
Found Watchman intoxicated.....	12
Miscellaneous excuses.....	1,030
	<hr/>
Total failures.....	12,978
	<hr/>

In other words, watchmen knowing their movements were being checked, failed 12,978 times in one year. What of the watchmen whose movements are not supervised? Every watchman needs supervision at the time of failure—Constant, impartial and reliable.



*Most plants operate but 32% of the year—68% of the time night watchmen are the sole guardians of valuable property.*

## **Central Station Report of Watchmen's Failures**



*Provides  
Continuous  
Supervision  
of the  
Watchman*

The D.E.P. Central Station Service may be described briefly as a system providing for continuous supervision of the watchman by an organization whose sole business is property protection, contact being maintained with the watchman by trained and impartial operators from the time he assumes his duties until he is relieved; to correct any irregularities even to the extent of providing a substitute watchman in the event of illness or disablement from whatever cause.

Under this system a watchman failing to perform full and proper duty cannot endure long because of the strictness of the supervision, and the conscientious watchman is assisted and protected in the performance of his duties. The supervision is continuous and failures are corrected immediately. Especially trained men are detailed to make investigations and restore the watchman to duty.

In addition to the apparatus installed for supervising the watchman, the D.E.P. System always includes Manual Fire Alarm boxes. These boxes are installed in accordance with the rules and requirements of the Fire Underwriting Boards, usually one or more boxes on each floor near the main exits. The operation of any one of these boxes sends a distinctive signal into the Central Station, and the alarm is transmitted immediately to the Fire Department. Thus the watchman upon discovery of a fire is able to send in an alarm from the spot without the loss of valuable time and may then devote his entire attention to extinguishing the fire until the fire brigade arrives.

In addition to transmitting the alarm to the Fire Department, the Central Station notifies the owner or such persons as may be shown on the card records to be telephoned, and D.E.P. guards are dispatched to the premises to assist if necessary. The signal received in the D.E.P. Central Station, not only indicates the premises from which the alarm is sent, but also the exact location of the box in the building.



**Figure 3—WATCHMAN PATROL  
AND MANUAL FIRE ALARM BOX**

*On this box the watchman signals the Central Station while on duty patrolling the building. Also a fire alarm box.*



# MANUAL FIRE ALARM SERVICES

**T**HIS system consists of specially designed boxes, as shown in Figure 3. Everyone of these boxes is a combination watchman and fire alarm box. Installed in various parts of the building to be protected every box is connected directly by an electrical circuit to the recording instruments in the Central Station. The boxes are so arranged about the plant that a complete patrol of the premises by the watchman during the time he is on duty will be assured.

Ordinarily one box on each floor and in the basement is sufficient. Where a building has a stairway in the middle, it is sometimes necessary to install one box at each end of each floor. Where a floor is divided by wooden partitions, it is sometimes necessary to install boxes in these separate enclosures. Where there are partitions, the upper parts of which are glass, this is not necessary.

For operating the box, the watchman is provided with a key, which enables him to turn in one signal at a time from each box. It is the practice and the rule of the Fire Insurance Underwriters that the watchman shall turn in a signal from every box in the protected plant at least once every hour between 6.00 p.m. and 6.00 a.m., and on Saturday afternoons, Sundays and holidays.

The signals, as they are turned in by the watchman, are transmitted over an electric circuit to the Central Station, where the box numbers and time of the signals are recorded. Record of the time signals are received is kept at the Central Station and a report sent to the owner or proprietor, as shown on Figure 4.

## Watchman Supervisory and Manual Fire Alarm System

**DOMINION ELECTRIC PROTECTION COMPANY**  
WATCHMAN AND MANUAL FIRE ALARM SERVICE

Name of Subscriber Canadian Furniture Co. Limited  
Address 742 Dundas Street West  
Keys with Central Office  
also with \_\_\_\_\_

Signals are sent in nightly, every hour from 6:00 p.m. to 6:00 a.m.  
Sundays and Holidays (Daytime) every hour from 6:00 a.m. to 6:00 p.m.  
Grace allowed twenty minutes

Notify in case of trouble

	Name	Address	Phone No.
1st.	H.T. Smith	1218 Lansdowne Ave.	Ken. 0469
2nd.	N.C. Spencer	46 Indian Rd.	Jct. 6941
3rd.	J.E. Hoover	1 St. James St.	La. 4260

Additional Instructions In event of serious fire notify first  
J.E. Hoover - Ho. 6442

Date June 6, 1930 Signed \_\_\_\_\_

Figure 5. Watchman's excuse slip. Sent to subscriber following morning after failure to signal Central Station.

Central Office record of parties to be notified in case of emergency.

**DOMINION ELECTRIC PROTECTION COMPANY**  
WATCHMAN AND MANUAL FIRE ALARM SERVICE

F.A. 1798  
Box No. 445  
Night Ending June 12, 1930  
KINGSBURY FOOTWEAR CO. LTD.

Time Due 8 p.m. to 8.30 a.m.

Box No.	Time	Signal
445	8:00	1
445	8:15	1
445	8:30	1
445	8:45	1
445	9:00	1
445	9:15	1
445	9:30	1
445	9:45	1
445	10:00	1
445	10:15	1
445	10:30	1
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445	3:30	1
445	3:45	1
445	4:00	1
445	4:15	1
445	4:30	1
445	4:45	1
445	5:00	1
445	5:15	1
445	5:30	1
445	5:45	1
445	6:00	1

Figure 4. Report to subscriber showing exact time watchman's signals are recorded in Central Station.



### *In the Case of Failure*

In case the watchman neglects or otherwise fails to turn in any of his signals on regular schedule time, special officers from the Central Station are sent to the protected plant to ascertain the cause of failure. If the watchman is found asleep, he is awakened, or if sick or disabled, help is secured and the plant patrolled by special officers until other means of watching the plant is provided. For ordinary neglect or failure, the officer requires the watchman to make a written excuse on a form provided for the purpose, Figure 5. This is forwarded to the proprietor or owner of the plant the next day.

In the event of fire being discovered by the watchman on his patrol of the plant, it is only necessary to turn to the nearest box, break the glass and open the door. By merely pulling down the lever a special fire alarm signal is transmitted to the Central Station, the number of the box being repeated seven times. This alarm is transmitted by a direct connection to the City Fire Department where it is acted upon in the same manner as an alarm from any city fire alarm box. For fire alarm purposes this box is available at any time day or night, Sundays and holidays, and in case of fire an alarm may be instantly turned in by anyone on the premises.

This type of system has been in existence a great many years, and hundreds of systems are in use by representative firms throughout Canada. It has the

advantage over other systems in that every box has the fire alarm feature available for service every minute of the day or night. The D.E.P. Central Stations never sleep and are always ready to transmit an alarm of fire to the fire department and dispatch its own officers to protected property.

Over a period of three years the fire losses in plants not protected by Central Station Service have been fifteen times greater than the losses in plants protected by this Central Station Service.

This system is recommended for installation in all types of buildings including hotels, hospitals, office buildings, departmental stores, manufacturing plants, warehouses, packing plants, etc.



*Combination Watchman Patrol and Manual Fire Alarm Box—flush type.*



## *Some Outstanding Features*

1. Provides a Central Station check on the patrol of the watchman every hour during nights, Sundays and holidays.
2. Provides a private fire alarm system available in case of emergency any time during the day or night.
3. Provides immediate investigation in event the watchman is delinquent.
4. Provides immediate notification to those in charge in event of serious trouble.
5. Provides prompt aid and assistance for the watchman in event he is sick, injured or disabled.
6. Provides emergency service in event the watchman is held-up or in need of immediate assistance.
7. Provides a written report to the owner, giving the cause and reason for each delinquency.
8. Provides a report of the watchman's entire performance.
9. Insures valuable property being properly patrolled and protected from fire and theft.
10. The equipment is always under the supervision of the Central Station officers and cannot be tampered with or put out of commission without giving an immediate notification.
11. The responsibility of maintenance and operation is placed upon an organization specializing in this work and is not left to the care of disinterested employees.

**Watchman  
Supervisory  
and Manual  
Fire Alarm  
Service**



*A typical Central Station of the Dominion Electric Protection Company where Fire Alarms and Watchman Signals are constantly supervised.*



## Watchman Compulsory Tour Service



THE purpose of the Watchman Compulsory Tour System, as the name implies, is to require the watchman to follow specifically defined routes in order that all parts of the premises may be patrolled a certain number of times during nights, Sundays and holidays.

The system is designed so as to avoid the skipping of out-of-the-way sections of the building by the watchman, in which sections a fire is just as likely to occur as in the main part of the building. This is accomplished by installing stations throughout the premises, on which the watchman registers a signal in the order decided upon in advance by the management.

The installation of this system will reduce the fire hazard very materially in factories, warehouses, office buildings, hotels, hospitals and schools. It is particularly adaptable for plants spread over large areas, and where there are a number of buildings to be protected.

## Description

The system consists of a self-setting Register or Key, together with a Transmitting Station and a number of Preliminary Stations.

Figure 6 shows the Transmitting Station as installed on the wall of the owner's establishment. This station only is connected with the Dominion Electric Protection Co.'s Central Office.

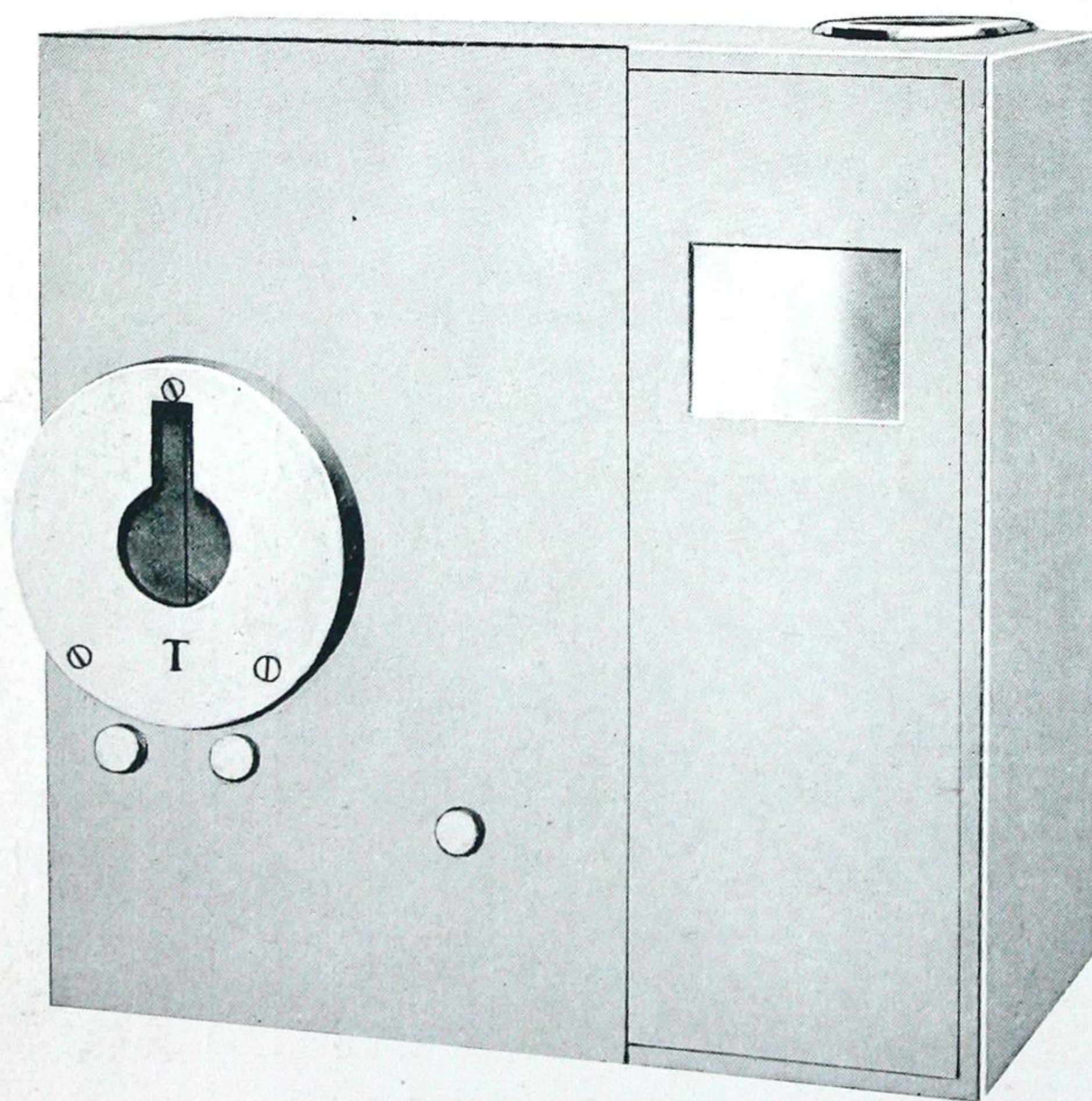


Figure 6—TRANSMITTING STATION

On this box the watchman signals the Central Office when starting and completing each hourly tour of the building.

Figure 7 illustrates a Preliminary Station as it appears on the wall. These Preliminary Stations are connected neither to the Central Station nor to the Transmitting Station. Should the watchman attempt to remove a station from the wall so as to place it in a more convenient location, and thereby shorten his route, the loosening from its position will cause the entire station to fall apart and thus break the combination.

Figure 8 shows the Register or Key, which the watchman uses for turning in his signals to the Central Station on the Transmitting Station, as well as for registering on the Preliminary Stations.



The average sized system is comprised of nine Preliminary Stations and one Transmitting Station. The stations are installed on walls, partitions, posts or columns, etc. Reference is made to a ten-Station System. This size is the most commonly used system, but five-Station Systems can be installed in small buildings, or twenty, thirty or larger systems as required.

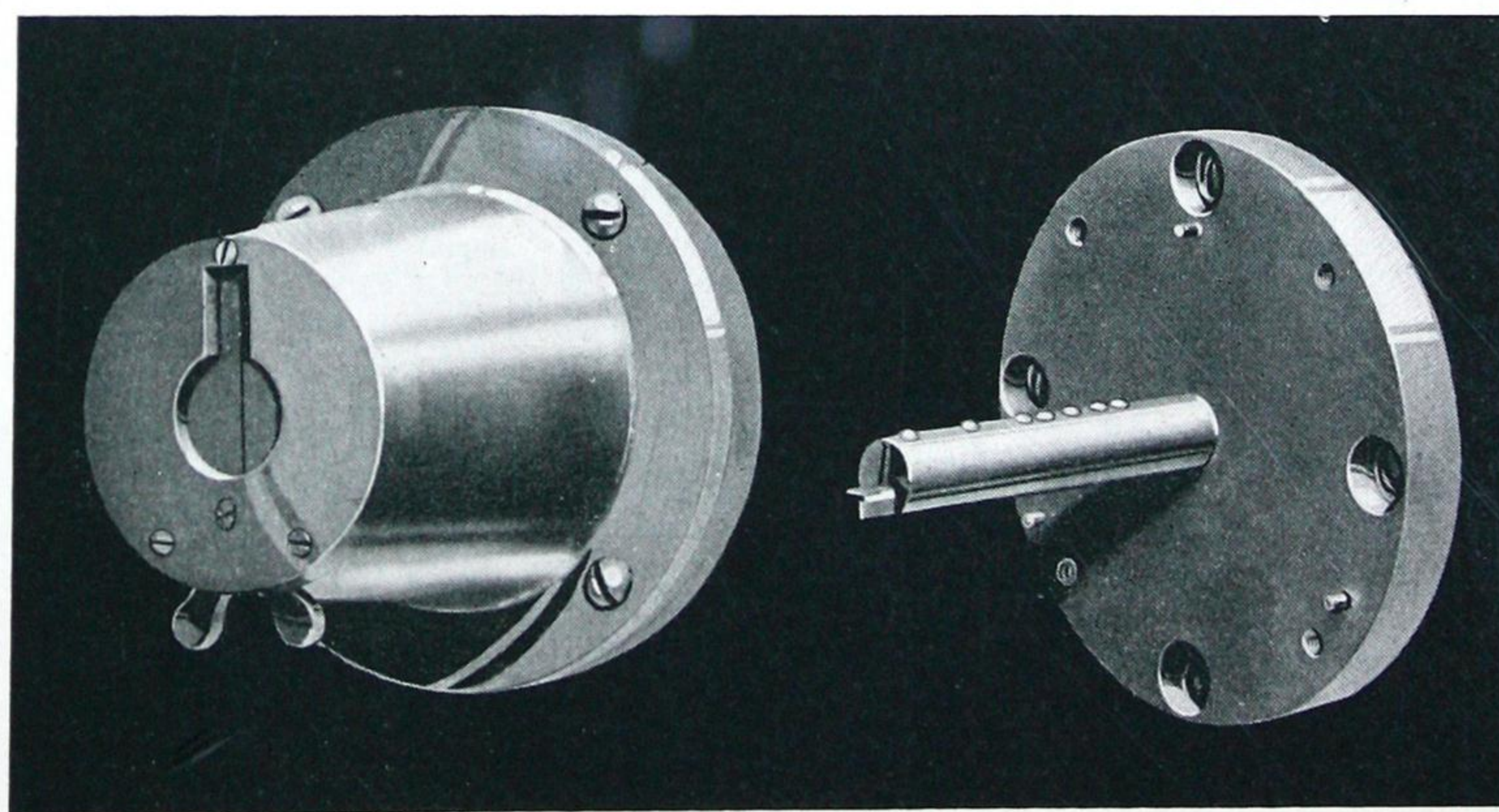
The watchman coming on duty at, say, six o'clock, commences his patrol of the protected premises by turning in his first signal to the Central Office. This is accomplished by pressing a button at the side of the Transmitting Station, which releases the key and transmits the signal to the Central Office at the same time, which is recorded as the time the watchman started his first tour.

The sending in of a signal to the Central Station and the releasing of the register or key automatically adjusts it for registering on the Preliminary Stations. The mechanism of the equipment requires that the watchman shall first register on No. 1 Station, then on No. 2, etc., until he reaches the end of the tour. Station No. 5 cannot be registered before No. 4, but all stations must be registered in their proper sequence. Preliminary Stations must be registered before a signal can be transmitted to the Central Office at the end of the tour, when a signal is again transmitted to the Central Office, and the register or key left in the Transmitting Station until the watchman is ready to make another round, when the register is released by pressing a button in the side of the Transmitting Station, which action also sends another signal to the Central Office. This indicates that the watchman has started on his second round, and the time is recorded at the Central Station. One of the outstanding features of this system is that each section of the building will be patrolled as pre-arranged by the management.

During nights, Sundays and holidays the watchman is required to turn in a signal from the Transmitting Station every hour when the plant is not in operation.

Both the Preliminary Stations and the Transmitting Stations can be fur-

## Operation



**Figure 7—PRELIMINARY STATION**

*Any number of these stations can be installed. After signalling the Central Station the watchman registers his signals on these stations in their proper order until the end of the tour.*



### *In the Event of Failure*

nished for flush installation, as shown in Figures 9 and 10, so that the devices do not protrude greatly beyond the surface of the wall. This system of mounting is furnished where it is desired to maintain a certain finished appearance, especially in office buildings, banks and other buildings of a similar character.

In the absence of a signal from the Transmitting Station at the Central Office, fifteen minutes' grace is allowed after the time it should be received, and if a signal is not registered by the end of that period, officers are sent to the protected premises to ascertain the cause of failure.

Through years of experience, failure to signal the Central Office has been found to be due to a number of causes, chief among which is the natural delinquency of the human watchman. With no one around the plant but himself, the watchman is liable to fall asleep, forget to patrol the premises and forget to register his signals, and sometimes he may even become sick or disabled. No matter what the cause of failure may be, the Central Office dispatches officers and does whatever is necessary to provide a proper patrol of the premises. If the watchman is sick or disabled, assistance is secured by the Central Station officers, and the interests of the subscriber looked after to the best of their ability.

For ordinary neglect or failure, the officers require the watchman to make a written excuse on a form provided for the purpose, a report of which is forwarded to the manager of the plant.

### *In the Event of Fire*

In conjunction with the Watchman Tour System, Fire Alarm boxes may be installed as required at exits or other desirable places, and connected directly into the Central Station. If a fire occurs, a fire alarm can be turned in from any of these boxes at any time during the day or night. This feature in itself is of great value to business houses. Ordinarily dependence is placed on a street fire alarm box, the location of which may be some distance from the building or unknown to the employees. The use of our special fire

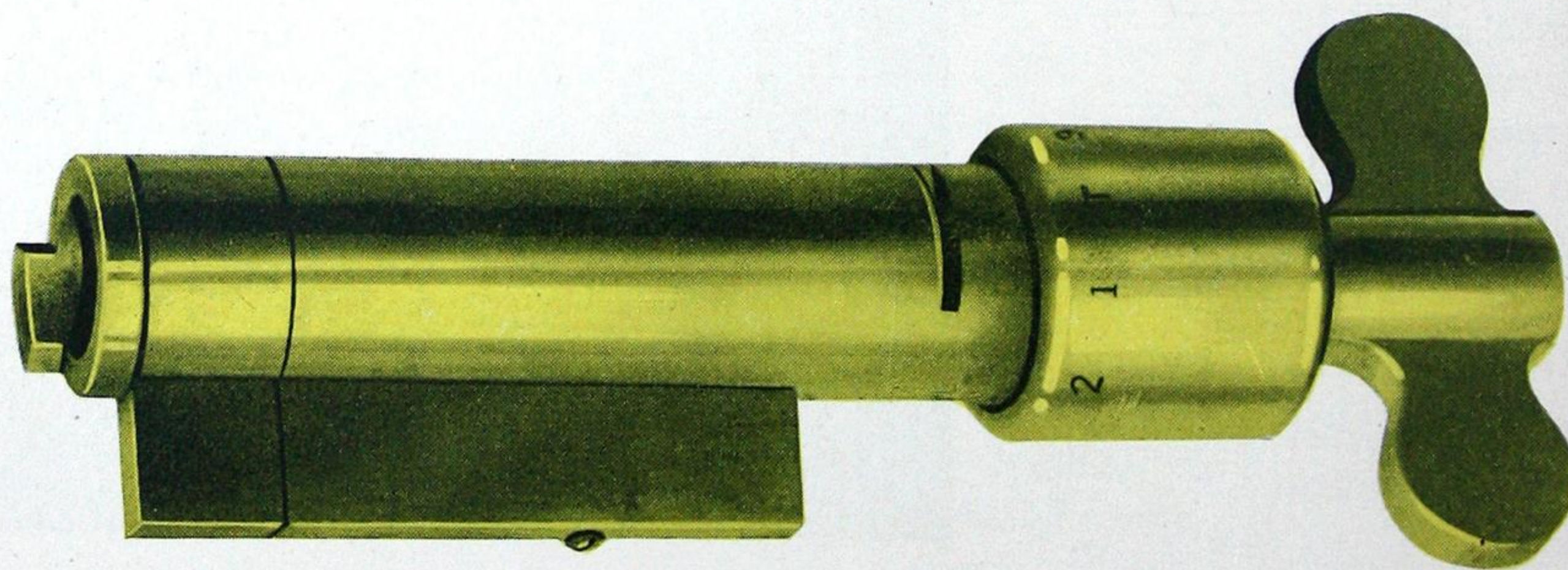


Figure 8—REGISTER OR KEY

*Used by the watchman for turning signals to Central Office on Transmitting Station and for registering on Preliminary Stations.*



alarm boxes saves valuable time in running to a street box. At night the time necessary in going to a street box can be used by the watchman to good advantage in an effort to extinguish the fire. *The time to stop a fire is immediately after the fire starts.*

The Watchman Compulsory Tour System is less expensive to install than any other standard type of Central Station equipment inasmuch as it eliminates the necessity of running extensive lines of conduit and wiring throughout the premises. Stations can be installed in remote corners of the premises without additional expense, and in locations where it is impossible to run conduit. If it is desired to relocate a Preliminary Station, it is only necessary to remove it from the wall and install another station of the same type in the new location.

The devices comprising the D.E.P. Watchman Patrol & Manual Fire Alarm Systems have been rigidly tested in the Underwriters' Laboratories and duly approved.

Their use with Central Station supervision provides the utmost that can be obtained in guaranteeing the watchman's performance and is recognized by insurance interests through a substantial reduction in premiums.

Like other Dominion Protective Services, the Watchman Patrol & Manual Fire Alarm Systems are sold on a rental basis with a moderate fee in addition to help cover the cost of installation. We make the installation of the system and maintain it in proper working order.

It incurs no obligation to visit one of our Central Stations, inspect the equipment and see at first hand the system in operation.

***Inexpensive  
to Install***

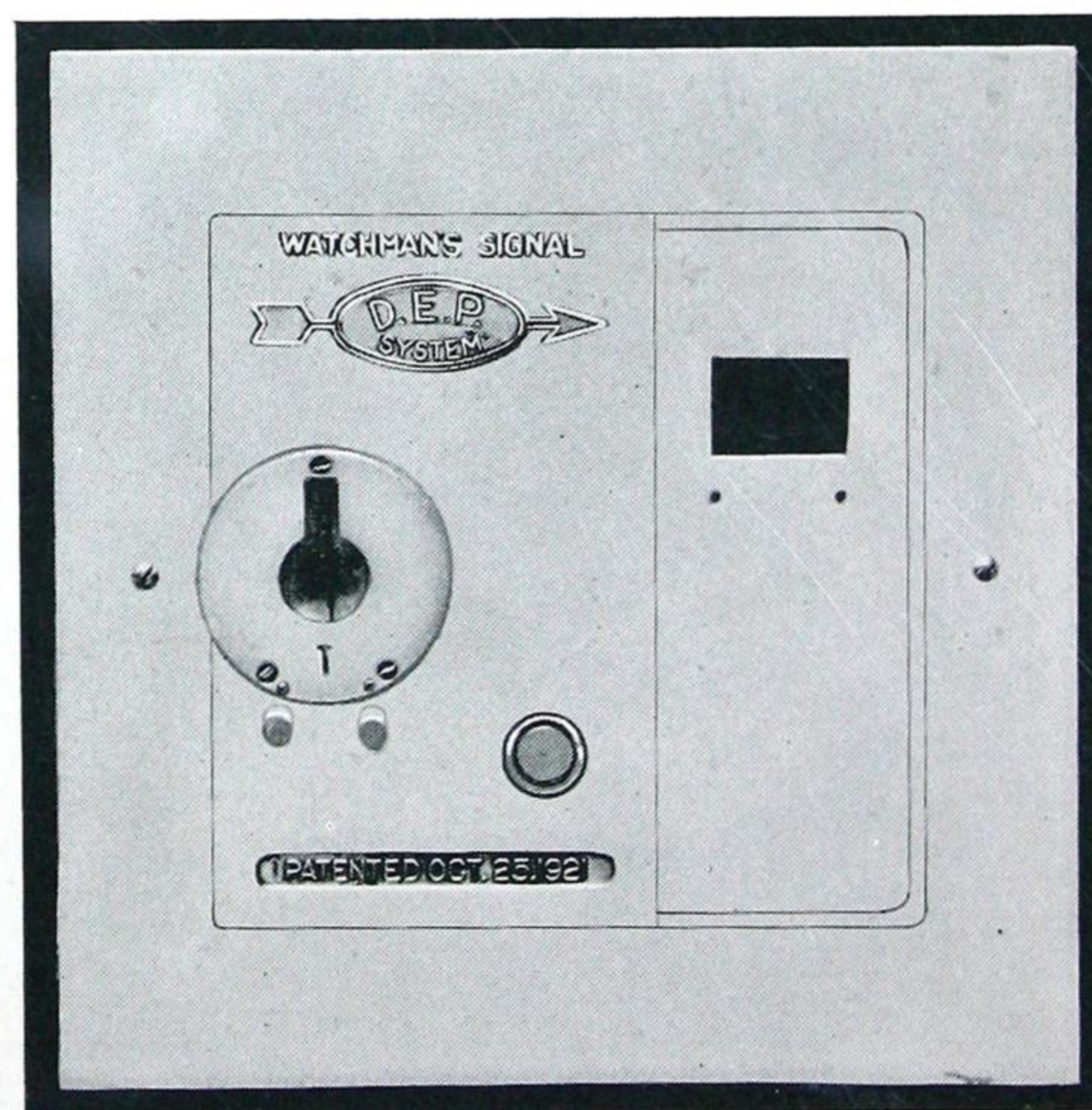
***Approved by  
Under-  
writers'  
Laboratories***

***Charge for  
the Service***

***Visit Our  
Central  
Station***



**Figure 9—PRELIMINARY STATION**  
*Flush Type.*

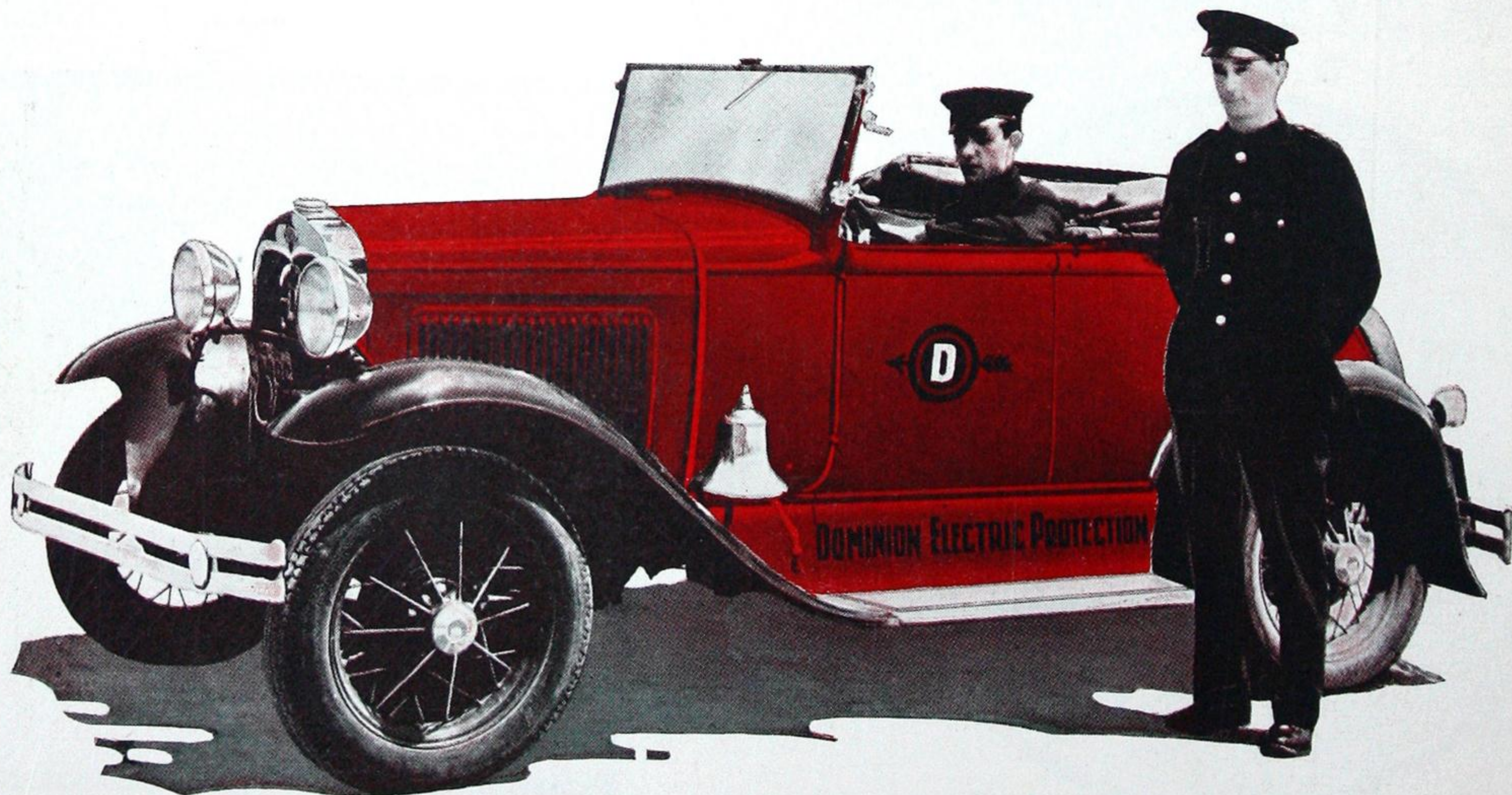


**Figure 10—TRANSMITTING STATION**  
*Flush Type.*



## *Some Important Features of the Watchman Compulsory Tour Service*

- 1 It is less expensive to install than any other standard system.
2. It can be installed quickly and without inconvenience.
3. It offers great flexibility in that the Preliminary Stations do not require conduit and, therefore, may be relocated as desired without material delay or expense.
4. It compels the watchman to make a complete tour of the premises.
5. It compels the watchman to visit each station in a fixed sequence.
6. It provides the watchman with a record that is before him at all times, indicating the station next to be visited.
7. It allows the watchman great latitude in patrolling the premises, thus allowing him to spend a sufficient amount of time at points of greatest hazard.
8. It eliminates extensive lines of conduit and wiring, thus reducing the possibility of circuit trouble within the premises.



**A SERVICE CAR**

*Used for answering alarms from subscribers' premises.*





HERE is another type of box which has, in addition to the usual mechanism for transmitting a fire alarm signal to the Central Station, an extra device for operating a local gong or a system of gongs within the protected plant itself. When the lever on the box is pulled, the alarm is not only transmitted through the D.E.P. Central Station to the Fire Department, but also sounds a code on the gongs installed throughout the premises.

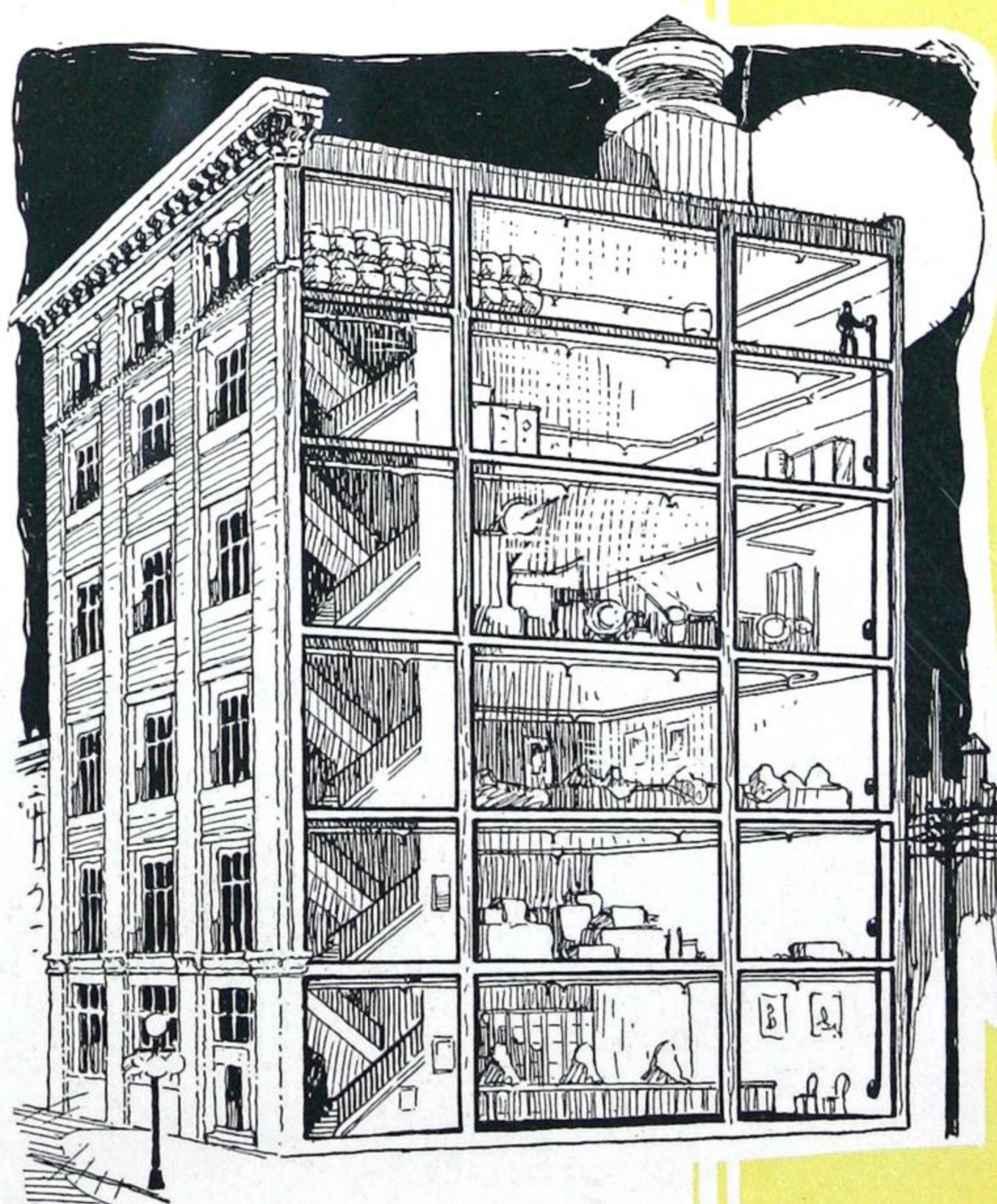
Gongs are sometimes installed to notify and bring together a Local Fire Brigade, and in this event the boxes are arranged to sound a predetermined code giving the exact location of the box pulled. The alarm may also be received on a tape register installed in some central location, such as the watchman's headquarters or brigade station. The members of the brigade are thus able to determine quickly the location of the fire and render emergency service until the City fire brigade arrives. The Local Gong System is energized either directly from the ordinary lighting supply or from a local source of energy.

This combination system is particularly adaptable for installation in hospitals, colleges, schools, theatres, hotels, as well as plants employing large numbers of people. In such buildings danger to human life is involved as well as destruction of property, and it is desirable to have a local system so that an alarm can be sounded throughout the building in the event of emergency.



*A sectional view of a building equipped with a Watchman Patrol and Manual Fire Alarm System. On the upper floor the watchman is shown turning in his hourly signals to the Central Station. It will be noticed that the location of the boxes on the various floors necessitates his visiting every part of the building in making his rounds.*

**Combination  
Central  
Station  
Watchman  
Patrol, Fire  
Alarm and  
Local Gong  
Service**





## Dominion Signal Call Paging System



SIGNAL Call Service is primarily an addition to the telephone service, providing an efficient means of *completing* telephone calls by promptly locating all important members of an organization regardless of their whereabouts—calling them to the nearest branch telephone. At the same time is provided a Code Signal System for broadcasting special messages.

The Signal Call Sending Unit is the brain of the system, as shown on this page, which is about one-half the size. Any message in code may be broadcast throughout the entire plant on the line of signal devices—by pressing a button.

## Signal Call Sending Unit



Full tone bell.  
Sizes 4" to 24"

The Signal Call System has been so designed that it may be expanded to keep pace with the growing needs of any organization. The Sending Unit may be furnished with sectional key units, giving either 10, 20, 40 or 60 code numbers. The Unit System makes it possible to change from 10 to 20 code numbers and additions of units of 20 numbers with the same ease as in adding units to a sectional bookcase. All connections are made automatically.

The Signal Call Sending Unit is usually placed on the switchboard. Pressing of the key starts the mechanism, operating the code number corresponding on the signal devices distributed so as to be heard anywhere on the premises. Where the Sending Unit is to be mounted elsewhere than upon the switchboard, a mounting bracket will be found of great convenience.

The designated "call" sounds three times, and automatically stops, allowing the maximum number of "calls" in a given time. The red jewelled lamp remains lighted while a call is being sounded.

The case is of solid brass, finished in black enamel (special finish upon request).



Signal Call Sending Unit on which the telephone operator broadcasts code signals.

## Relays

The signal devices used in the Signal Call System are operated through a relay. The relay makes and breaks the current and protects the contacts in the sending station. The sending instrument handles only the small amount of current required to operate the relay.

While a master relay is required with each Signal Call System, except in cases where but one signal device is used, the use of additional relays often simplifies the installation and reduces the cost of a large code signalling system. Relays are generally used as follows:

1. To enlarge a signal system allowing practically unlimited extension.



2. To utilize a different current for operating the signal devices than the current used for controlling their operation.
3. To operate signal devices in outlying buildings over a leased telephone line.

"Signal" relays are particularly designed for the exacting requirements of code signalling service. Their remarkable performance during many years of service, has well earned for them the confidence of the leading electrical equipment manufacturers who use them in conjunction with apparatus or systems of their own manufacture.

## *Signal Devices*

Care should be used in determining the number and size of signal devices required. To cover a large area, better distribution of sound is often obtained with a number of small devices than with one or two large ones. Our Engineering Department is at your service.

### *Single Stroke A.C. and D.C. Bells*

A clean cut blow and the plunger drops back instantly, allowing the gong to vibrate freely. The result is a true ring—clear, full toned, pleasant, yet singularly penetrating. Ideal for code signalling, because the sound is clear and distinctive with less chance of confusion than with other types.

### *Vibrating A.C. and D.C. Bells*

A long time element is secured between strokes which permits the gong to vibrate freely and give a true ring of great penetrating or signalling power. The contact is not broken or the contact pressure reduced until the plunger has practically reached the end of its stroke when it engages the interrupter and opens the circuit with a quick break.

Tests equivalent to ten years of actual service failed to wear out any part of this bell. At the end of the tests the tone was just as sharp, clear and powerful as at the beginning; the operation was just as dependable, the response just as quick and positive. Sounds a distinctive signal where single stroke or other types may be in use for other purposes.

### *Weatherproof Bells*

Cast bell metal gong (polished). Thoroughly protected from rain, snow and ice with cast metal hood. Cast metal universal housing suitable for wall mounting. The hood is black enamel (baked) finish.

### *Weatherproof Guarded Bells*

The same in every detail as the weatherproof bells described above with the addition of a wire guard to



*Musical Tone Bell  
Suitable for Hos-  
pitals, Libraries,  
Department  
Stores, etc.*



*Showing method of operating switchboard in conjunction with  
Signal Call System.*



# S I G N A L C A L L P A G I N G S Y S T E M

enclose the lower half of the gong. Used in locations where it is desirable to have gong completely guarded and protected.

## *Universal Outlet Box for Bells*

Used for mounting (flush or non-flush) all bells regardless of size or type—with the exception of weatherproof types. Half inch knockouts on all four sides. Installation convenient and simple, allowing completion of all wiring regardless of size or type of bells to be mounted later. A great convenience, especially in buildings where flush mounting is desired. Subsequent changes easily made.



*Soft Tone Bell  
for  
quiet places.*

## *Soft Tone Bell*

Equipped with a padded plunger giving a pleasing yet penetrating tone. Suitable for stock room, drafting room and other quiet places.

## *Musical Tone Bell*

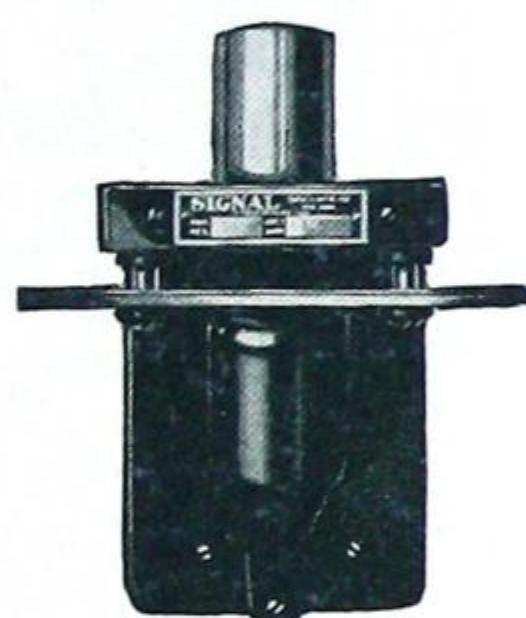
Same as the soft tone bell with resonator chamber added, mellowing the tone. Suitable for hospitals, libraries, department stores, etc.

## *Special Tone Bell*

Cow gong of the best cast bell metal with dull black finish, a particularly distinctive sound for quiet places.

## *Chime Signal*

Zylophonic principle, giving a distinctive musical tone with remarkable penetration, maintaining full volume at a great distance. Suitable for banks, offices, stores, hospitals, etc.



*Chime Signal  
with remarkable  
penetration.  
Suitable for banks,  
offices, stores, hos-  
pitals, etc.*

## *A.C. Duplex Horn* (For 60 cycle alternating current only)

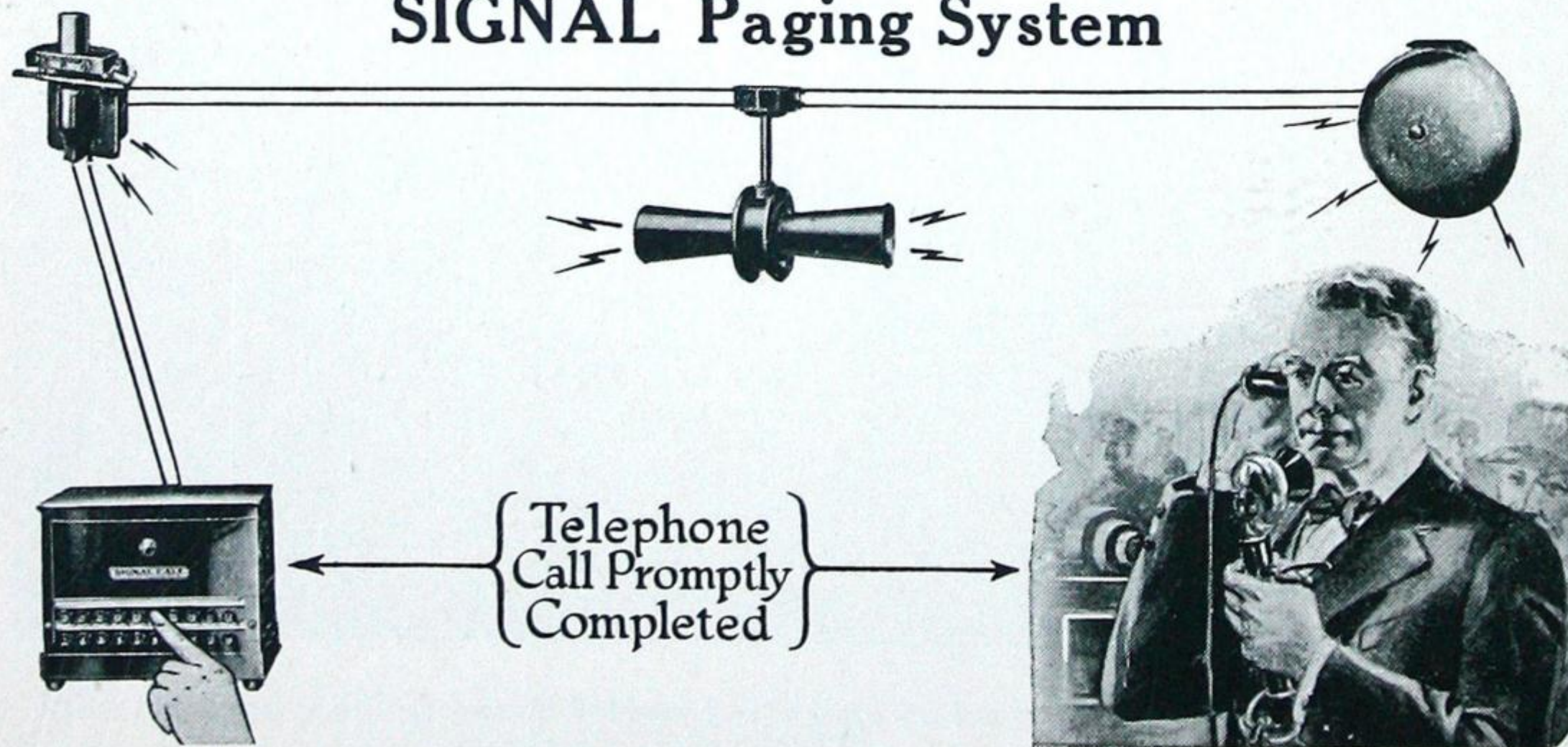
Has but one moving part—a sturdy, self-lubricating plunger of great wearing quality. Free from springs, vibrating reeds or other delicate parts. May be mounted in any position. Very effective for code signalling because of the distinctive, vibrant, loud and penetrating sound. Two projectors send the sound in opposite directions with the carrying capacity of two horns. May be sounded indefinitely without injury. Volume control adjusted by means of thumb screws.

## *Motor Operated Horns*

In extreme cases where a large area must be covered by one signal, or where a bell tone will not penetrate, the high pitched note of a motor operated horn

is effective. Weatherproof—tapped top and bottom for  $\frac{1}{2}$  inch conduit.

## SIGNAL Paging System



The Dominion Electric Protection Company will either sell the equipment only or arrange for its installation as well. Any of our offices will gladly give further details regarding the Dominion Signal Call Paging System.





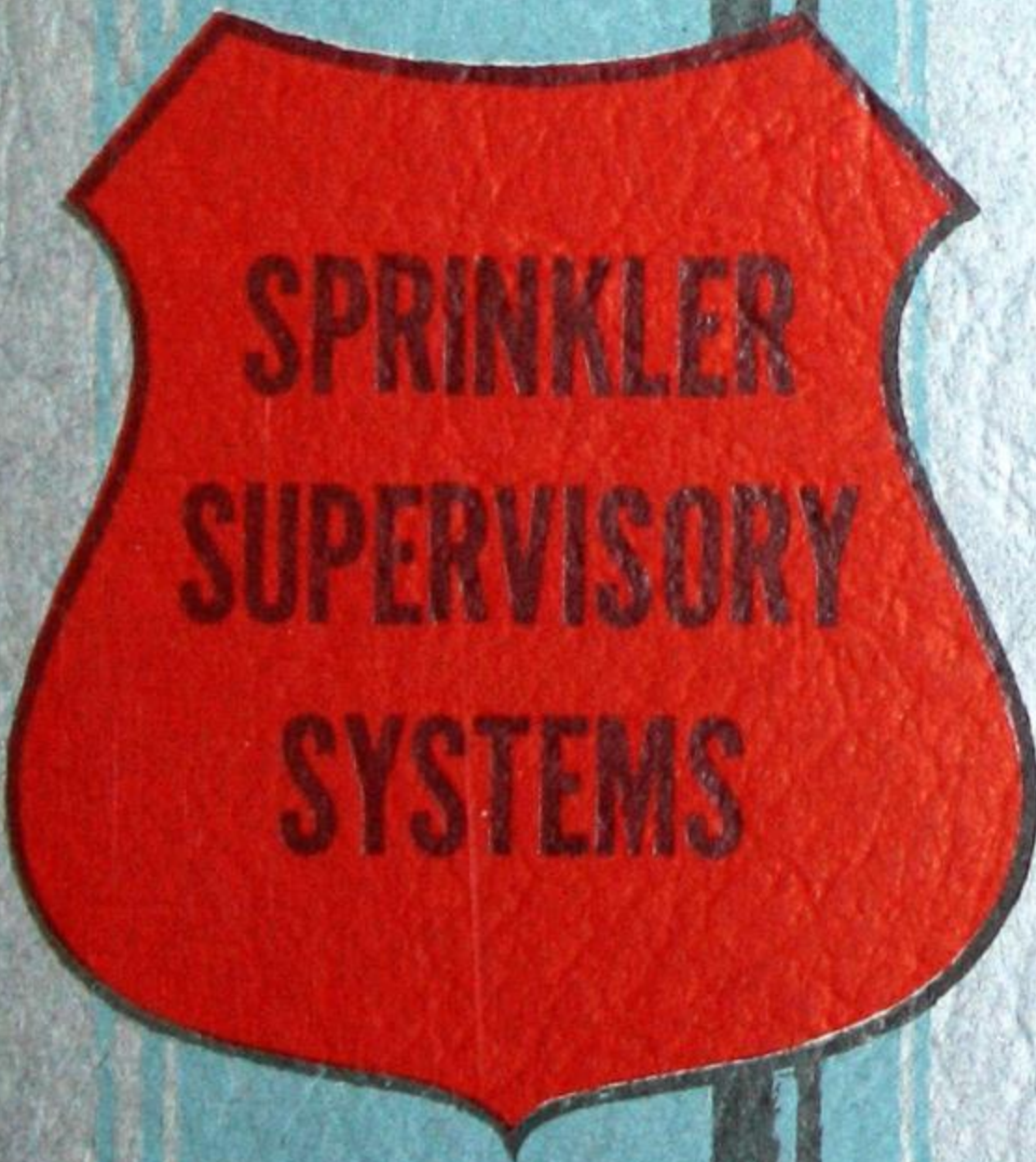
THIS SIGN APPEARS ON A  
DOOR OR A WINDOW  
WHERE  
**DOMINION PROTECTIVE SYSTEMS**  
ARE INSTALLED







# DOMINION PROTECTIVE SYSTEMS



SPRINKLER  
SUPERVISORY  
SYSTEMS

DOMINION ELECTRIC PROTECTION  
COMPANY

TORONTO. MONTREAL. QUEBEC. OTTAWA  
HAMILTON. LONDON. WINNIPEG.



## TO ARCHITECTS:

**O**UR Engineering Department will gladly co-operate with the architectural profession in preparing designs, estimates and specifications for the installation of our standard systems, modifications thereof or to meet special or unusual situations. In planning new buildings it is well for Architects to consult with the Dominion Electric Protection Company before the erection of such buildings where Dominion Electric Protective Systems are to be installed, so that the necessary conduits and wiring can be provided.

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# SPRINKLER SUPERVISORY SYSTEMS

**T**HE Dominion Electric Protection Company manufactures, installs and operates Electric Signalling Systems for the protection of property from fire and theft. These systems include Sprinkler Supervisory Systems, Automatic Fire Alarm Systems, Watchman Patrol and Manual Fire Alarms and Burglar Alarm Systems.

Central Stations are maintained in the larger cities of Canada, including Toronto, Montreal, Quebec, Ottawa, Hamilton, London and Winnipeg, where staffs of experienced officers are on duty day and night to answer alarms from premises equipped with these systems.

This booklet describes the Sprinkler Supervisory System and Service (as installed and operated by the Dominion Messenger & Signal Co. Limited, a subsidiary company of the Dominion Electric Protection Company). If information is desired regarding our other systems, please communicate with any of our offices or with the head office of the Company located at 92 Adelaide Street West, Toronto, Ontario.

In cities and towns where Central Station Service is not available, local or self-contained systems can be installed similar to the systems herein described. In place of being connected with a D.E.P. Central Station, such premises are connected to a local Fire or Police Department or some other central point as the conditions may require.







## SPRINKLER SUPERVISORY SYSTEMS



### *Sprinkler Supervisory Service*



N Automatic Sprinkler System is universally recognized as the most effective means of protecting property against the menace of fire. Sprinkler Systems are effective in attacking the fire when and where it starts. No matter what hour of the day or night a fire starts the Sprinkler System stands ready for service. In protecting against a serious conflagration it also prevents interruption to business and the subsequent financial loss.

But the Sprinkler System without supervision is liable to cause water damage running into thousands and thousands of dollars. At any time a small blaze may start, off go the sprinkler heads and the fire is extinguished in short order, but the heads will not automatically close off the flow of water after it has done its duty of wiping out the blaze. The Sprinkler System alone cannot provide complete protection. Furthermore, the Sprinkler System may at any time go out of order as any other piece of automatic equipment, and must be carefully safeguarded and supervised in order to render proper service.

The Sprinkler Supervisory Service of the Dominion Messenger & Signal Co. Limited is the ounce of prevention that makes the operation of the automatic sprinkler system practically perfect. Day and night this service automatically and continuously supervises all the vital parts of the sprinkler equipment.



*"A little fire is quickly trodden out, which being suffered rivers cannot quench."*





## SPRINKLER SUPERVISORY SYSTEMS



*A typical Central Station where Fire and Sprinkler Alarms are constantly received.*

It safeguards against human carelessness, human laziness and human forgetfulness through the medium of electric equipment which automatically transmits a signal to a D.M. & S. Central Station indicating any trouble that might make the system inoperative.

Closed gate or shut-off valves are the cause of the majority of failures of the Sprinkler System to function when fire breaks out. Statistical records show that 28½ % of the serious fires in sprinklered plants are due to water being shut off in the system. D.M. & S. service is the only adequate solution of this problem because it automatically sends a warning when any valve is closed. No human being can watch all the valves in an establishment from the basement to the roof, all day and throughout the year. Anyone can and is likely to close a gate valve—the engineer, a repairman, an inspector, one of the tenants, a thoughtless employee, and the moment this happens the water supply is completely cut off.

Many instances are known of fires occurring in sprinklered plants employing watchmen where there has been serious water damage due to watchmen having left the premises or for some other reason not being on duty. The Sprinkler Supervisory Service overcomes this very condition. It is automatic in its detection of water flowing from sprinkler heads, and therefore accomplishes its work more certainly and more quickly than any human watchman.

*The Danger of  
Closed Gate  
Valves*

*Watchman  
Failures*

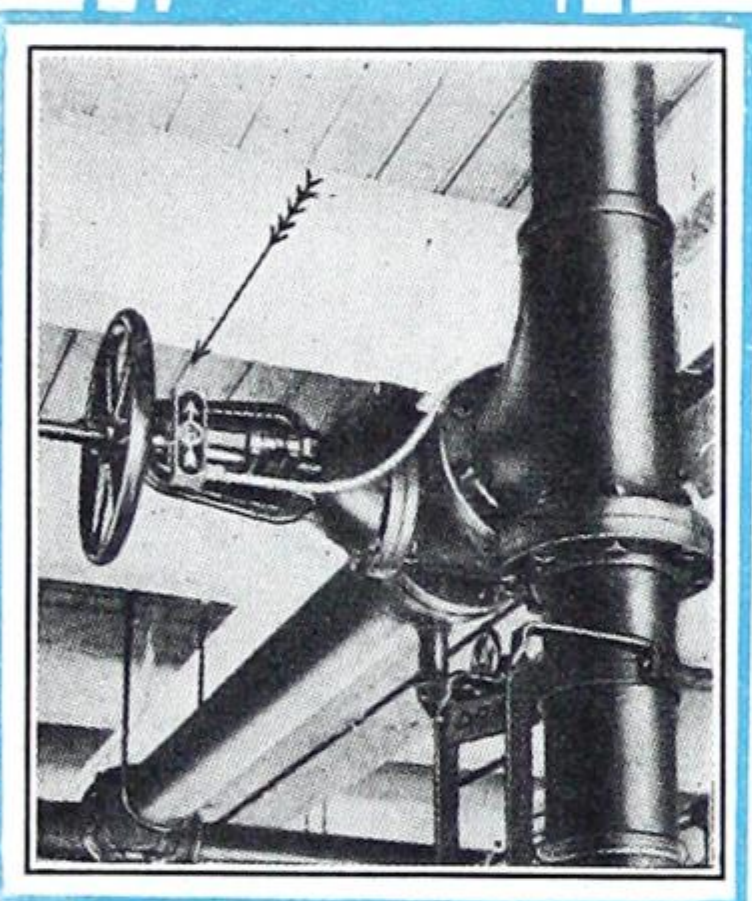




## SPRINKLER SUPERVISORY SYSTEMS



*Sprinkler Head*



*Supervised Gate Valve*



*Protected Gravity Tank*

**T**HERE are many ways in which the Sprinkler System may become inoperative. The following are some of the outstanding reasons why a Sprinkler System should be supervised by the Sprinkler Supervisory Service of the Dominion Messenger & Signal Co. Limited.

1. **IMMEDIATE ACTION WHEN WATER FLOWS.** Sprinkler heads open automatically and discharge water at the rate of 30 gallons per minute, and after the fire is out water continues to flow until shut off. Sometimes a \$50.00 fire will cost \$50,000 in water damage.

When the system is supervised by D.M. & S. service the period of water damage is reduced to a minimum.

During one year 3,936 waterflow alarms were recorded in the D.M. & S. Central Stations.

2. **IF GATE VALVES ARE CLOSED.** So important is the Gate or Shut-off valve that the Sprinkler System is rendered absolutely useless in the event of fire if it is closed.

In one year the D.M. & S. Co. reported to its subscribers 5,022 instances where gate valves were closed.

3. **PRESSURE TANK HAS INSUFFICIENT AIR PRESSURE.** Air systems have a way of leaking, air is hard to hold. There must be at all times sufficient pressure in the pressure tank to force the water through to the sprinkler heads in case of fire.

In one year the D.M. & S. Co. reported no less than 3,024 instances where air pressure was below normal.

4. **WATER LOW IN PRESSURE TANKS.** It is important to maintain proper air pressure and water level. The D.M. & S. air gauge and water float give signals when either are out of order.

The D.M. & S. Co. reported 470 instances of this type in one year.





## SPRINKLER SUPERVISORY SYSTEMS



5. **WATER LOW IN GRAVITY TANKS.** This type of supply is by its very nature inaccessible. Moreover, it is exposed to the weather. Yet, it is the most vital part of a great many sprinkler equipments. Properly inspected and maintained it is a splendid source of supply, but rigid inspection and careful maintenance, especially in winter, are essential.

For one year the D.M. & S. Co. reported 794 instances of low water in gravity tanks.

6. **GRAVITY TANKS FREEZE.** During the winter season the tanks are exposed and if they freeze the necessary pressure is lost. Even if no fire occurs while the tank is frozen, there may be a damaged tank to repair.

The D.M. & S. Co. has never had to report such an occurrence, as Sprinkler Supervisory Service eliminates such a possibility by notifying subscribers of dangerously low temperatures in gravity tanks.

7. **DRY VALVES TRIP.** In buildings where a wet system will freeze, a dry system is installed. The sprinkler pipes contain air under pressure preventing the flow of water through the dry pipe valve until a head opens. Air pressure must be maintained or the dry system will fill with water.

The D.M. & S. Co. during one year reported 480 cases of low air pressure in dry systems.

*With Sprinkler Supervisory Service a Gate Valve could not be closed at any time during the day or night without an alarm being registered in the Central Station.*







## SPRINKLER SUPERVISORY SYSTEMS



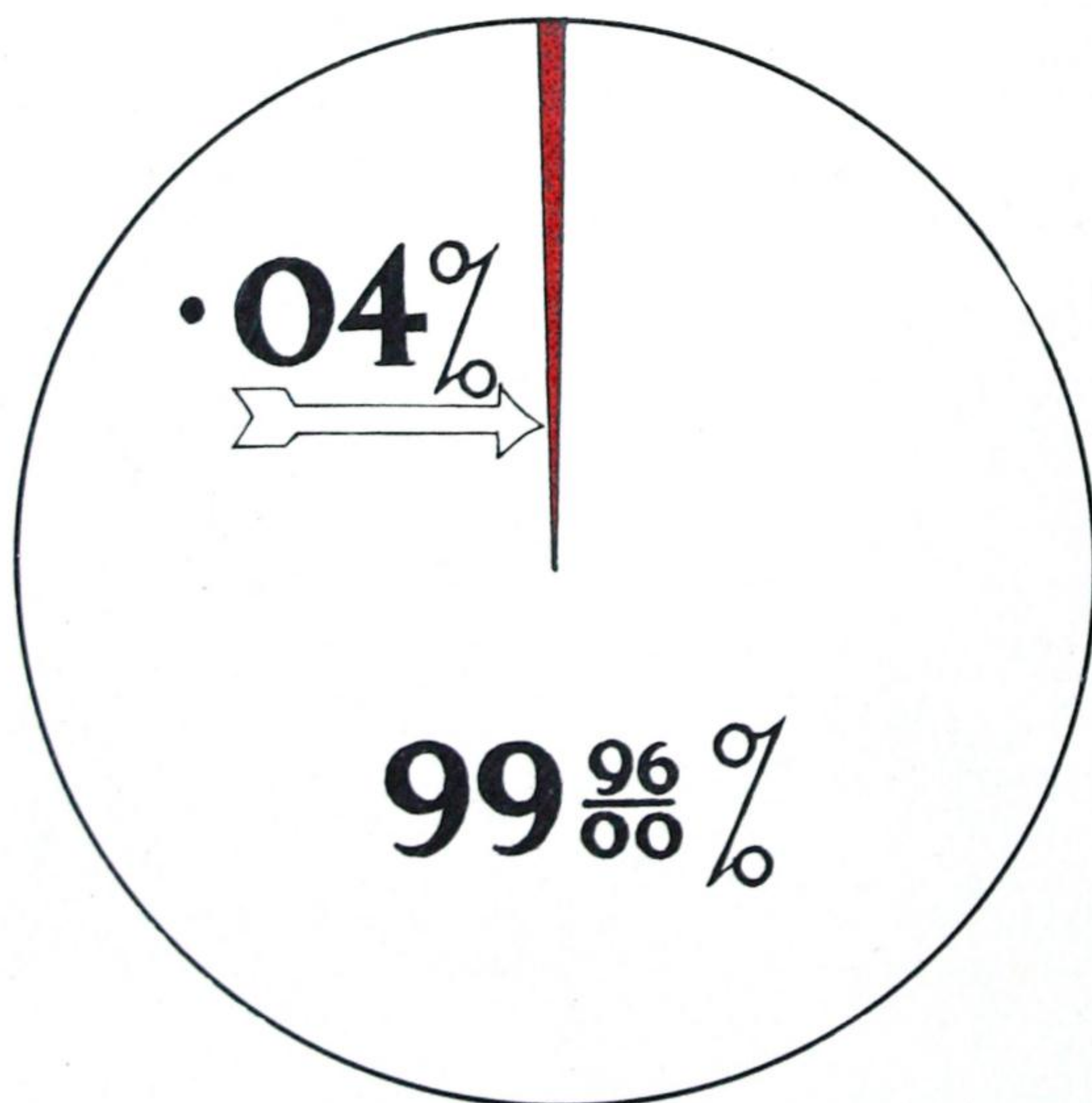
### *The Automatic Sprinkler*

**T**HE ordinary sprinkler is composed of a system of pipes connecting with at least one, and preferably two sources of water supply, and equipped with certain devices called heads that release the water in the system when the temperature of the surrounding air rises to some predetermined figure, usually 165° F.

The primary water supply in most Canadian cities is the ordinary water main. The secondary supply may be a gravity tank, a pressure tank or a second water main either on another street or connected to a system of lower or higher pressure. In cities where the temperature during the Winter is not an important factor, it is common practice for the gravity tank to be used as a secondary supply. Where low temperatures prevail the pressure tank is more generally used or what is known as a "dry system" is installed.

The sprinkler head is a device attached to openings in the upper side of the smaller pipes of the sprinkler system. The head has a half inch opening which is kept normally closed by means of a button and a fusible link that melts at a predetermined temperature. The ordinary heads fuse at 165°. Other heads for use over ovens, boilers and similar places are provided that will stand a much higher temperature.

Every sprinkler system is provided with shut-off or gate valves. All valves are required to be O.S. & Y. (outside screw and yoke) of some approved make. For indicating a flow of water from the sprinkler system, alarm or water flow valves are used. These also must be of an approved pattern satisfactory to Fire Insurance Underwriters.



*Plants protected by the D.M. & S. Sprinkler Supervisory  
Service receive 99.96% immunity from fire.*

For buildings that cannot be readily heated, such as refrigerating plants, factories and warehouses of certain types, dry systems are installed. The dry system differs from the ordinary wet system in the fact that the larger part of the system contains instead of water, air maintained at a pressure of from thirty to fifty pounds per square inch. In dry systems there is installed close to the source of water a dry valve that holds back the water below the valve by means of air under pressure above the valve.

There are two excellent reasons for installing automatic sprinkler systems.



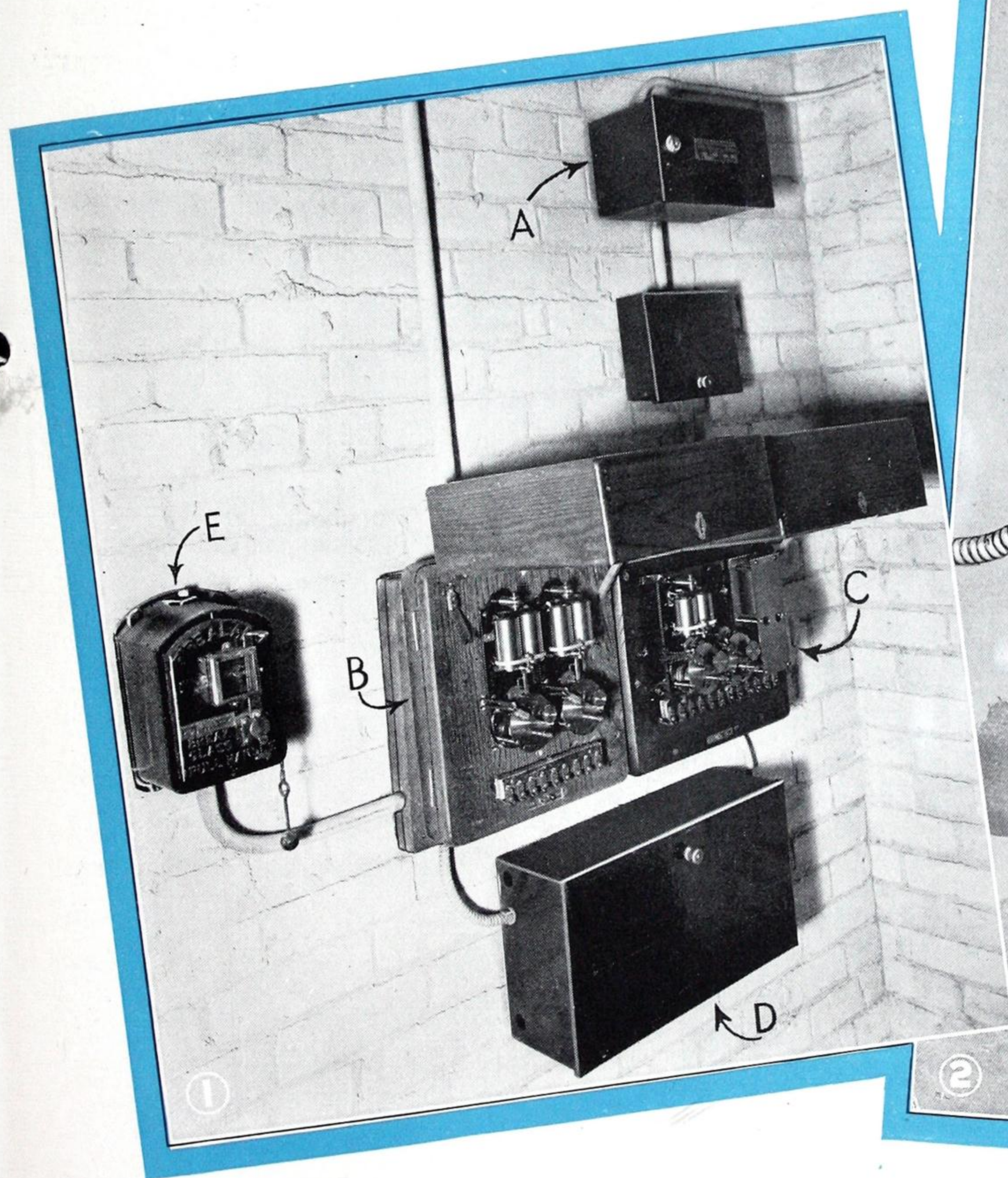


## SPRINKLER SUPERVISORY SYSTEMS



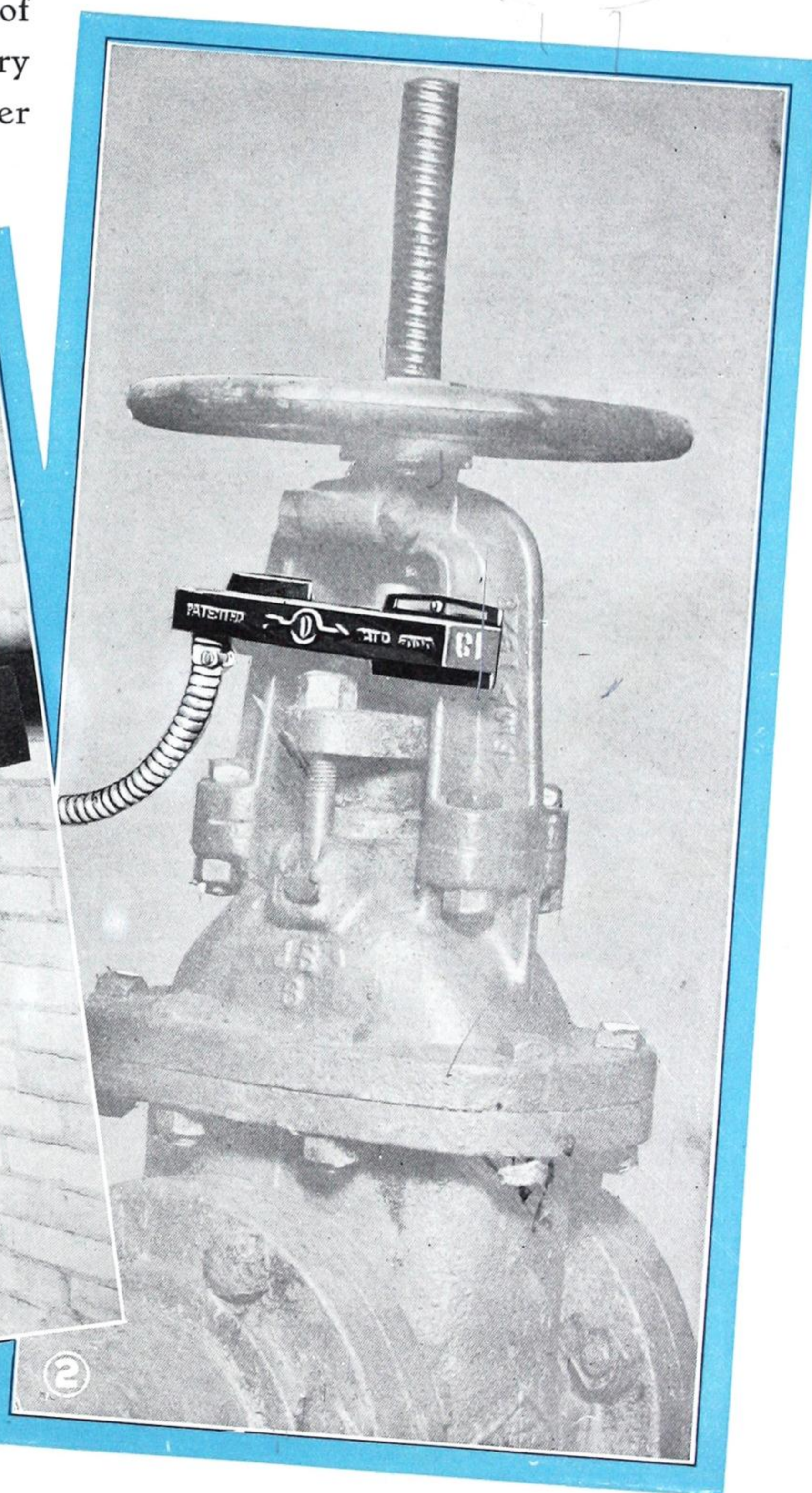
The first is the one given in the opening paragraph, i.e., that it is probably the most efficient means available for extinguishing fire. The second is a low fire insurance rate, an outgrowth of the first. The reduction in the rate of insurance allowed for sprinkler protection ranges from 25 to 75 per cent. The lower rate and dependence on the efficiency of the sprinkler system itself for protection against fire presupposes a system in perfect working order.

A Sprinkler System can be installed in all types of buildings, with the exception of structures with very high ceilings, telephone exchanges or electric power houses.



1—Typical installation of Sprinkler Supervisory devices.

A—Rectifier.  
B—Supervisory Transmitter.  
C—Fire Alarm Transmitter.  
D—Storage Battery.  
E—Manual Fire Alarm Box.



2—Gate Valve equipped with the Sprinkler Supervisory device.





## SPRINKLER SUPERVISORY SYSTEMS



### *Sprinkler Supervisory Service*

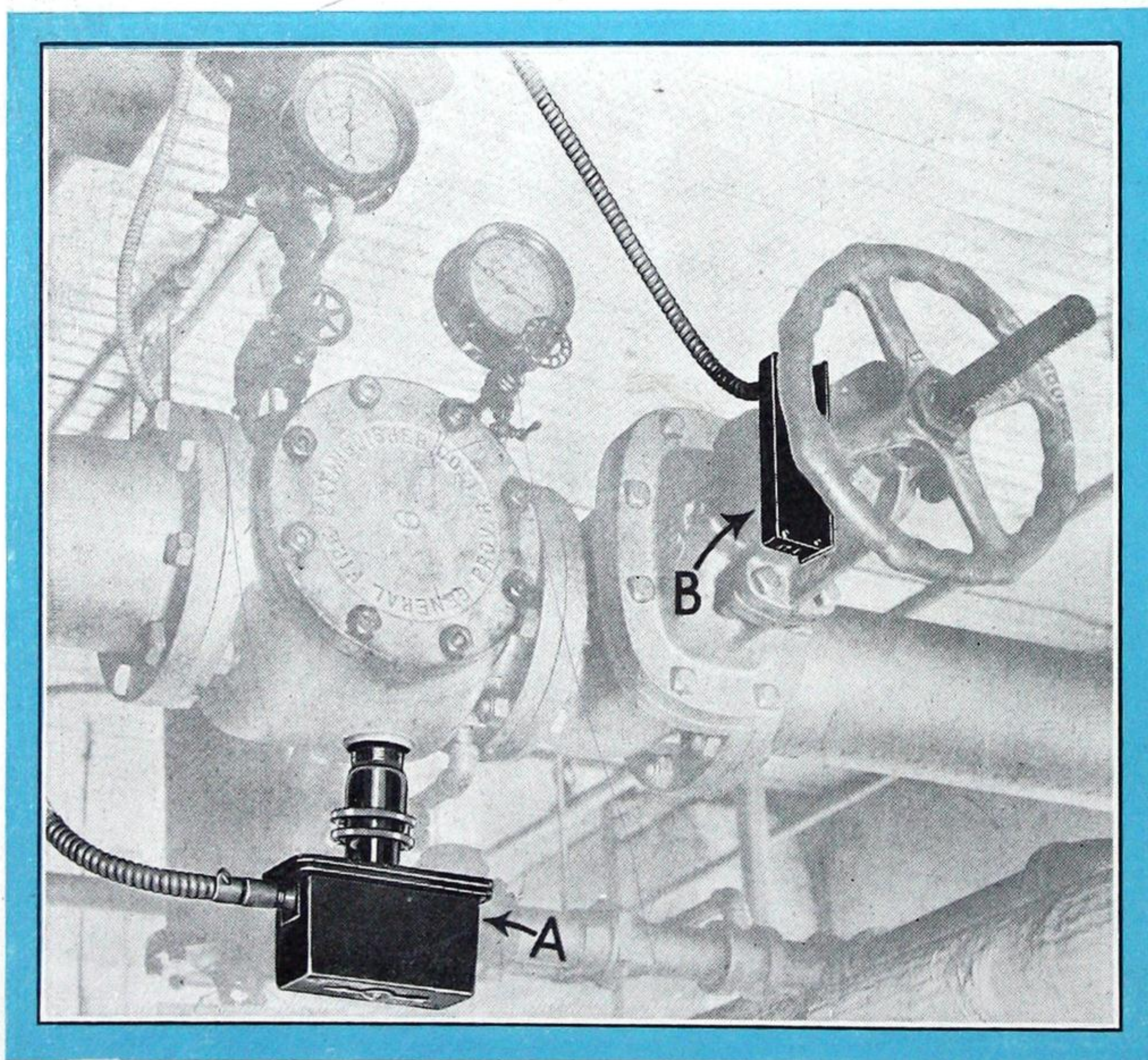


WHEN a Sprinkler System has been equipped with the Supervisory devices (illustrated and described in the following pages) and connected with a Central Station, the sprinkler equipment becomes its own inspector, automatically calling for human help from the Central Station whenever the need arises. This service gives instant automatic warning of any faulty condition of the Sprinkler System, just as the sprinkler heads are automatic in finding and putting out fire. The signals are received in the D.M. & S. Central Station where operators are constantly on duty to act immediately and restore the sprinkler to normal as quickly as possible. In case of fire or waterflow, an alarm is transmitted immediately to the Fire Department.

In every case of trouble a distinctive signal is automatically transmitted to the Central Station. On receipt of this signal the officers in charge of the Central Station know exactly what is wrong, and experienced officers are dispatched immediately to investigate the trouble and look after the property owner's interests. If the conditions so warrant, the owners or their engineers are notified. Upon restoration of the system to normal condition a signal is received

at the Central Station. Signals are recorded in a log book for future reference and reports are made to the Insurance Underwriters having jurisdiction, so that they are constantly aware of the exact fire protection conditions surrounding their risks.

This general procedure is followed no matter what the trouble may be, except that in the case of a fire or waterflow signal a special alarm is flashed to the Central Station and the alarm sent to the Fire Department headquarters by means of a private wire.



*Typical installation of Sprinkler Supervisory equipment showing protected:*

*A—Wet Alarm Valve Switch.*

*B—Gate Valve Switch.*





# SPRINKLER SUPERVISORY SYSTEMS

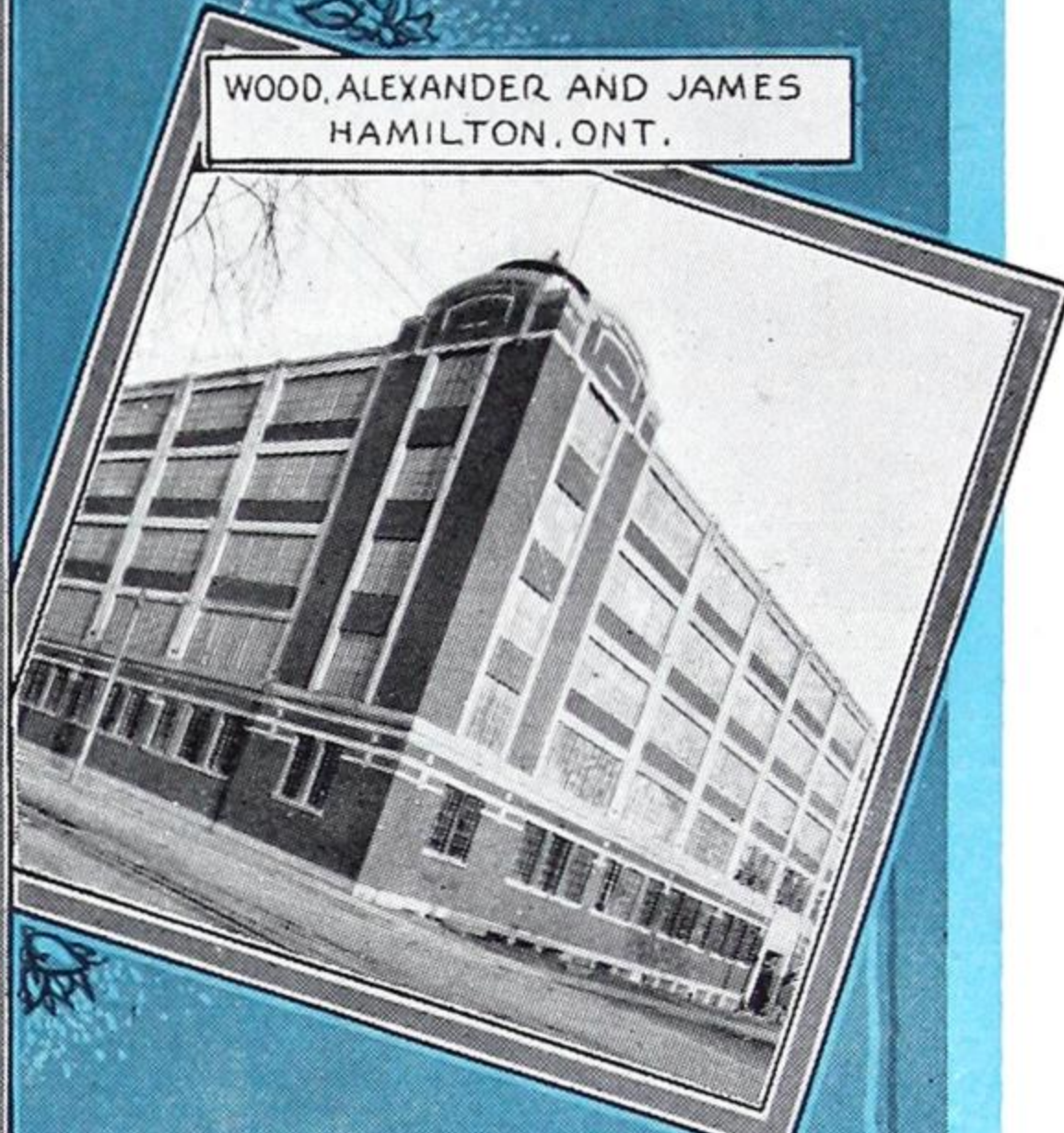
THE T. EATON CO. LIMITED OF MONTREAL  
MONTREAL, QUE.



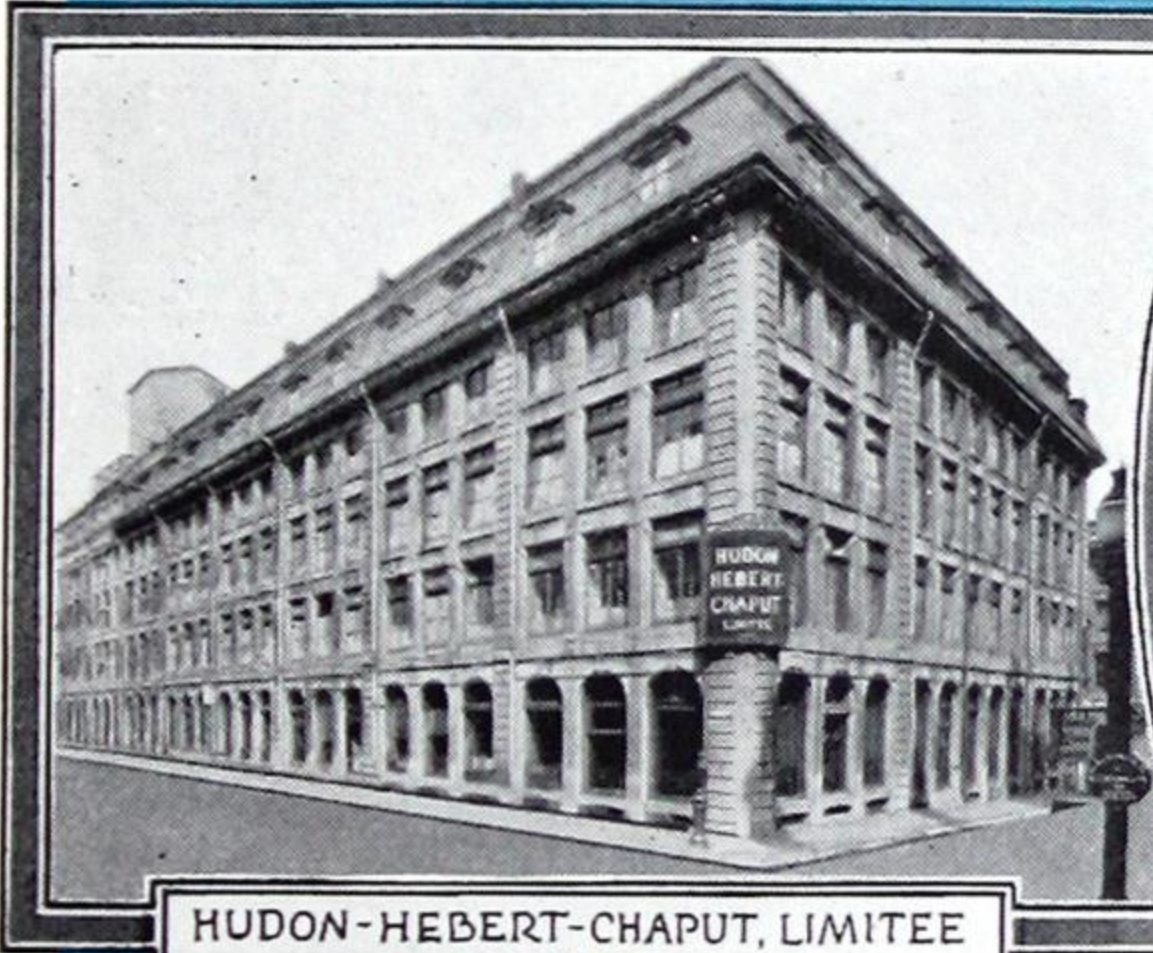
YORK PIPER BUILDING  
TORONTO



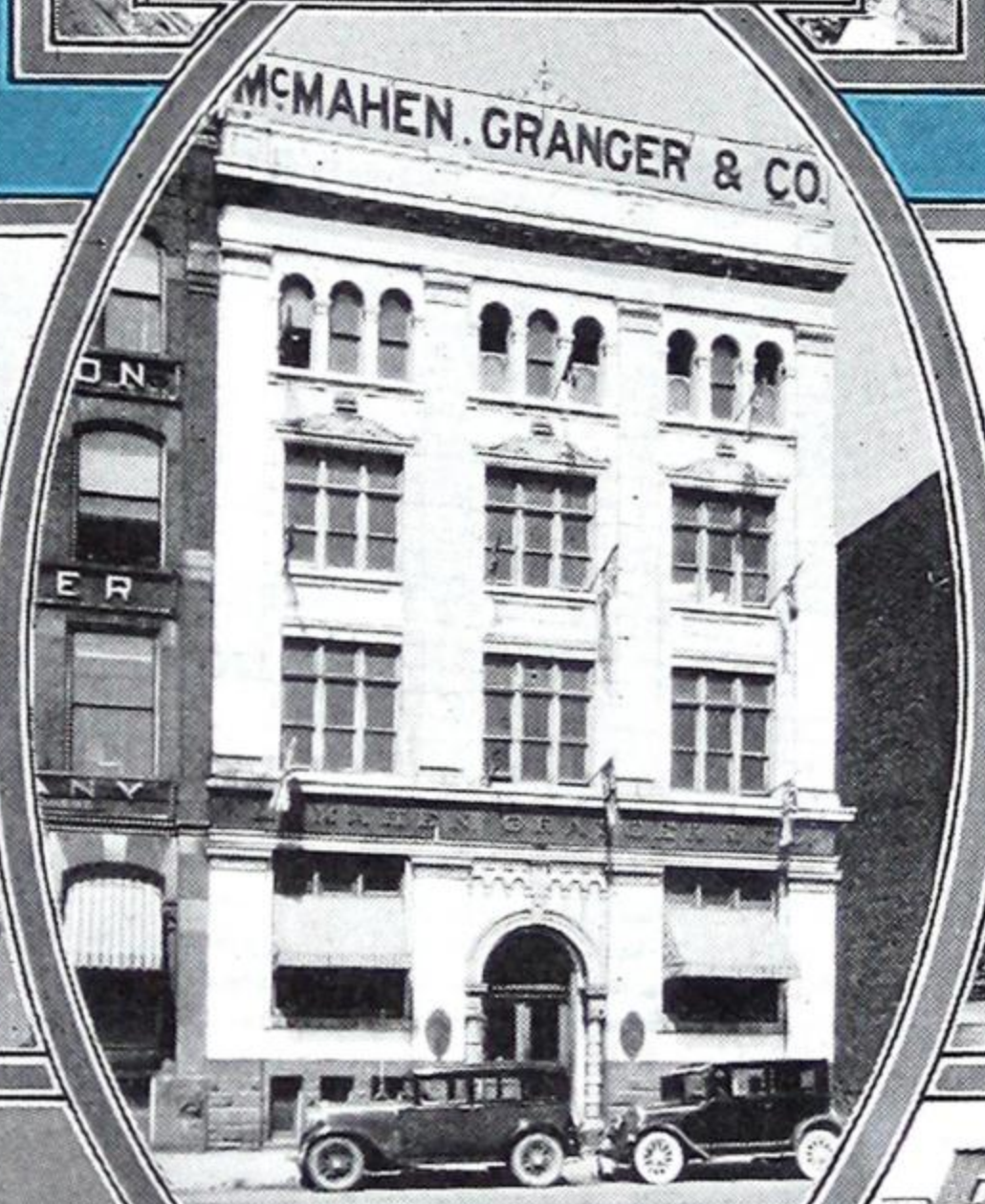
WOOD, ALEXANDER, AND JAMES  
HAMILTON, ONT.



HUDON-HEBERT-CHAPUT, LIMITEE  
MONTREAL

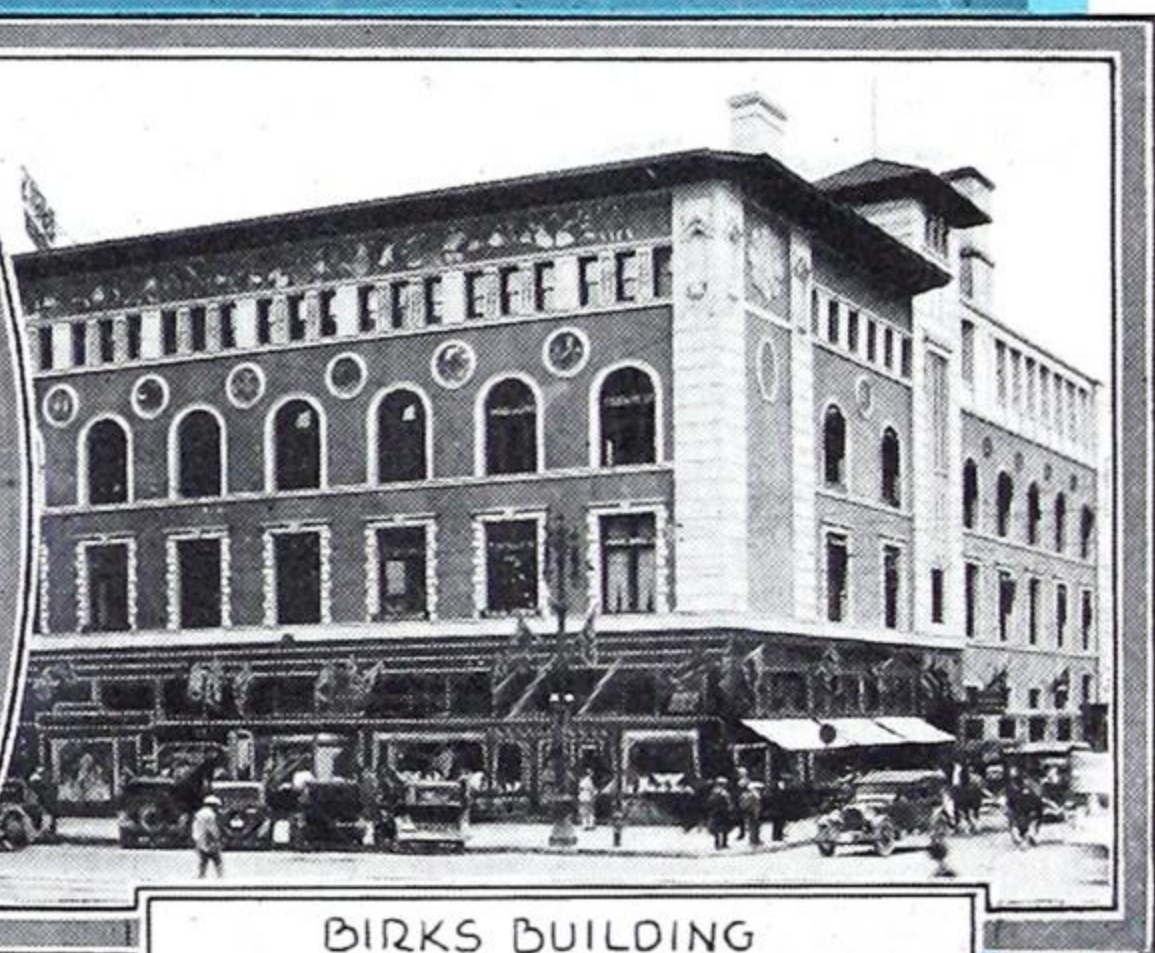


McMAHEN, GRANGER & CO.

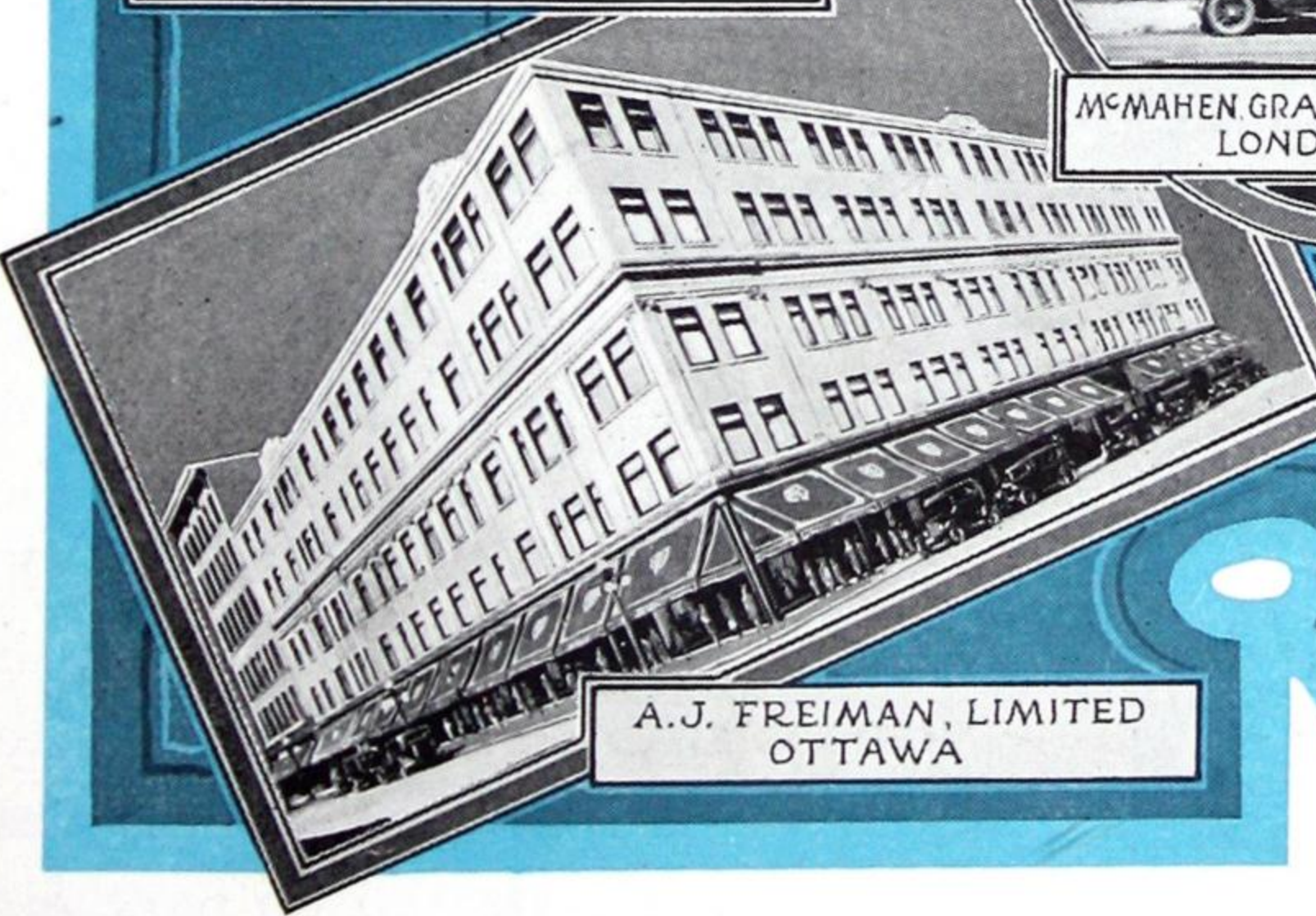


McMAHEN GRANGER & CO. LIMITED  
LONDON, ONT

BIRKS BUILDING  
WINNIPEG



A. J. FREIMAN, LIMITED  
OTTAWA



THE QUEBEC LIQUOR COMMISSION  
QUÉBEC, QUE



*Buildings of Representative Business Establishments Protected by the  
Dominion Sprinkler Supervisory Service*





## SPRINKLER SUPERVISORY SYSTEMS

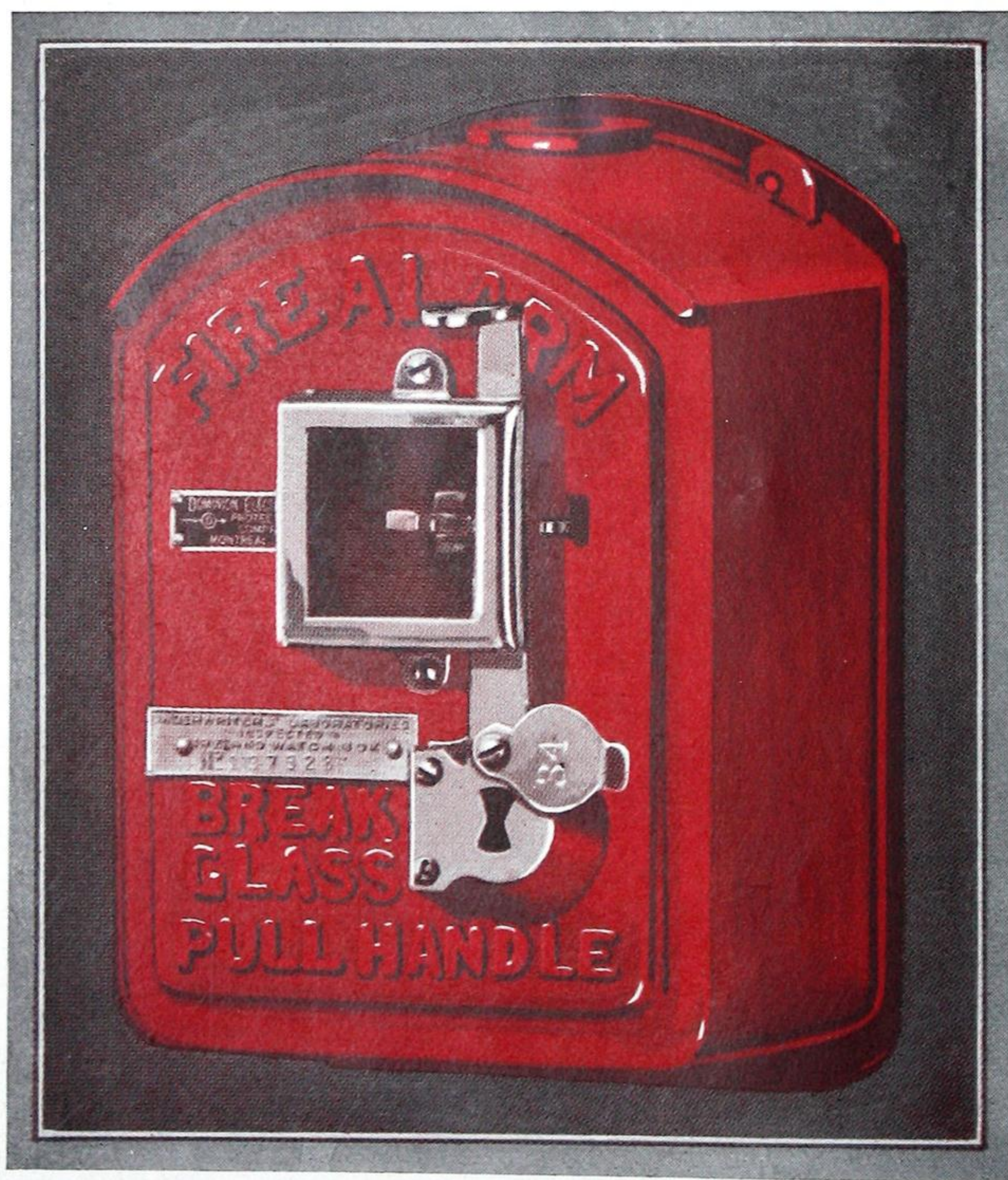


### *Description of the Sprinkler Supervisory System*

**T**HE Dominion Sprinkler Supervisory System is comprised of devices installed on various parts of the sprinkler system and connected through other electrical instruments to the Central Station of the Dominion Messenger & Signal Company where a staff of experienced officers is on duty day and night to answer alarms.

To all shut-off or gate valves are attached devices that indicate to the Central Station when a shut-off valve has been closed. In gravity tanks are installed devices that indicate to the Central Station when the water in the tank is twelve inches below the normal level or when the temperature of the water has fallen below 40 degrees Fahr.

In pressure tanks are installed devices that indicate to the Central Station abnormal water level, low temperature or low air pressure in the tanks. In dry systems are installed devices that indicate to the Central Station a fall in the air pressure to a point that would cause the dry valve to operate and permit water to enter the system.



*Fire Alarm Box—Fire Alarm is transmitted to the Central Station and Fire Department by breaking glass and pulling down the lever in event of fire being discovered prior to the opening of the sprinkler heads.*

Every wet sprinkler system is provided with one or more alarm valves, usually placed at the base of the sprinkler risers. Several types of alarm valves may be used. The function of any alarm valve is to indicate a flow of water, as in the case of an open head from the Sprinkler System. The devices used in this connection in the Sprinkler Supervisory Service transmit to the Central Station a signal indicating a flow of water equal to the flow from one sprinkler head. Waterflow signals, unless otherwise arranged, are treated as fire alarm signals. The sprinkler system, therefore, becomes with Sprinkler Supervisory Service an automatic fire alarm system. Illustrated on page eight is an alarm valve fitted with the special switch used in the Sprinkler Supervisory System.

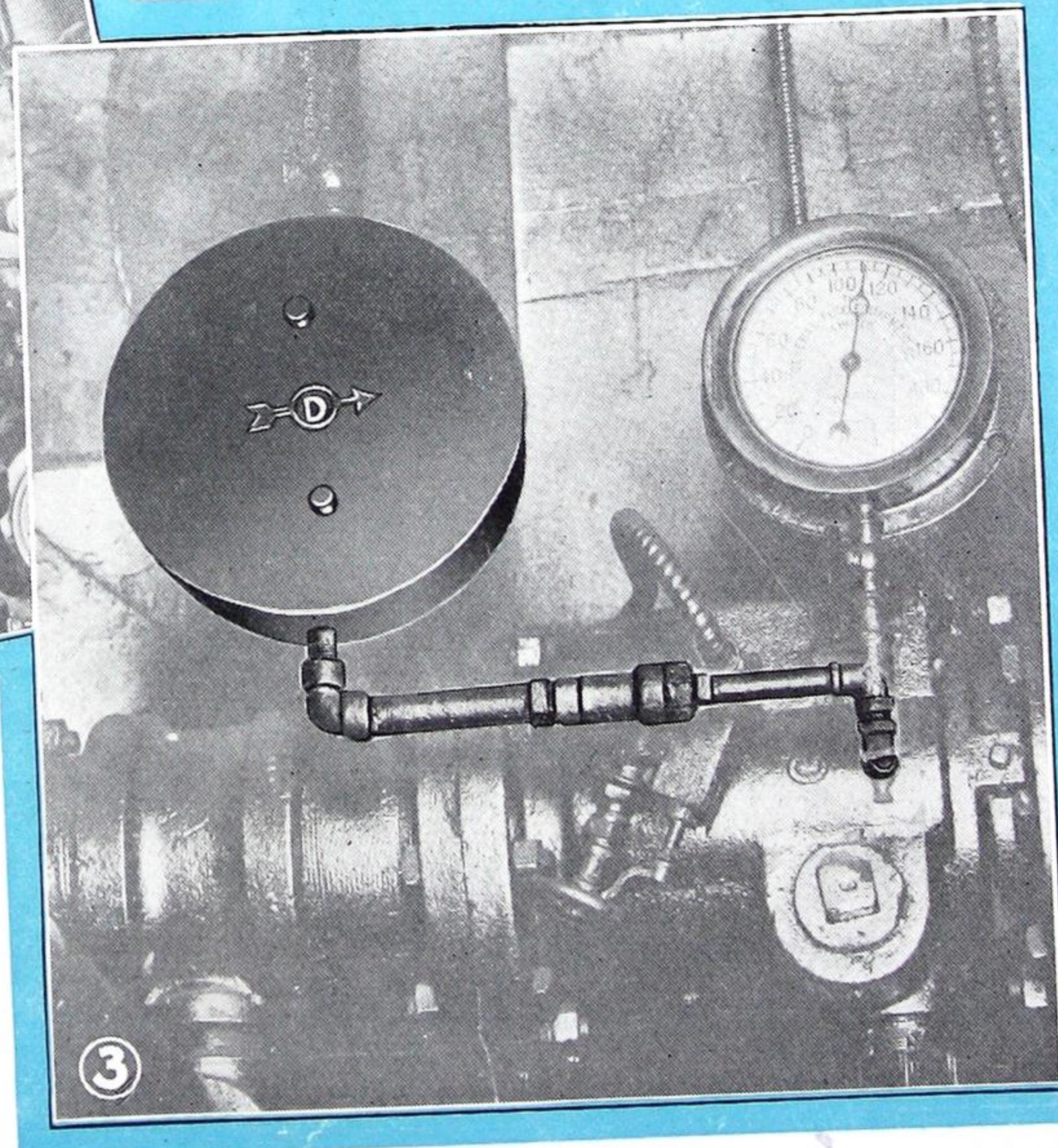
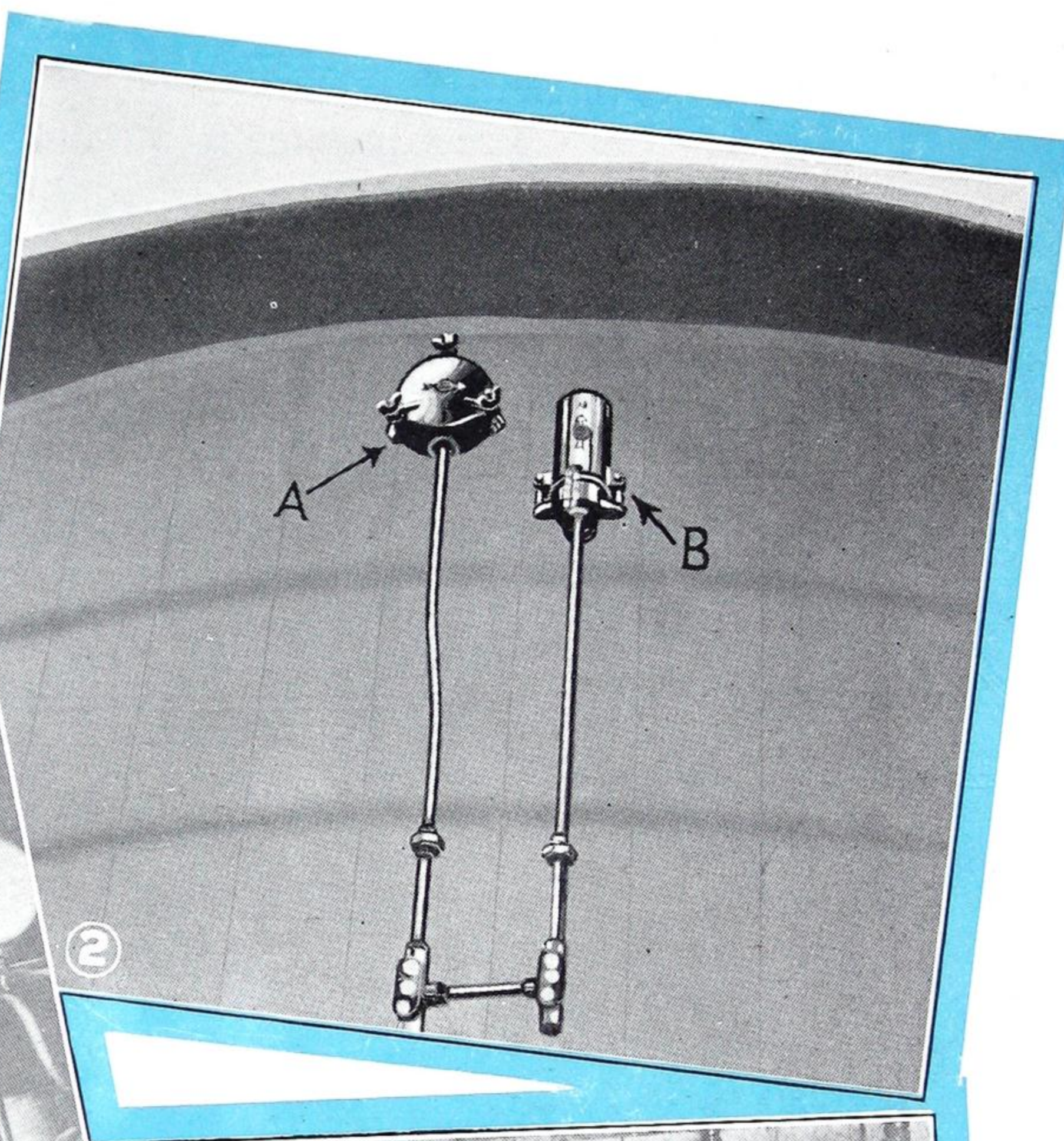
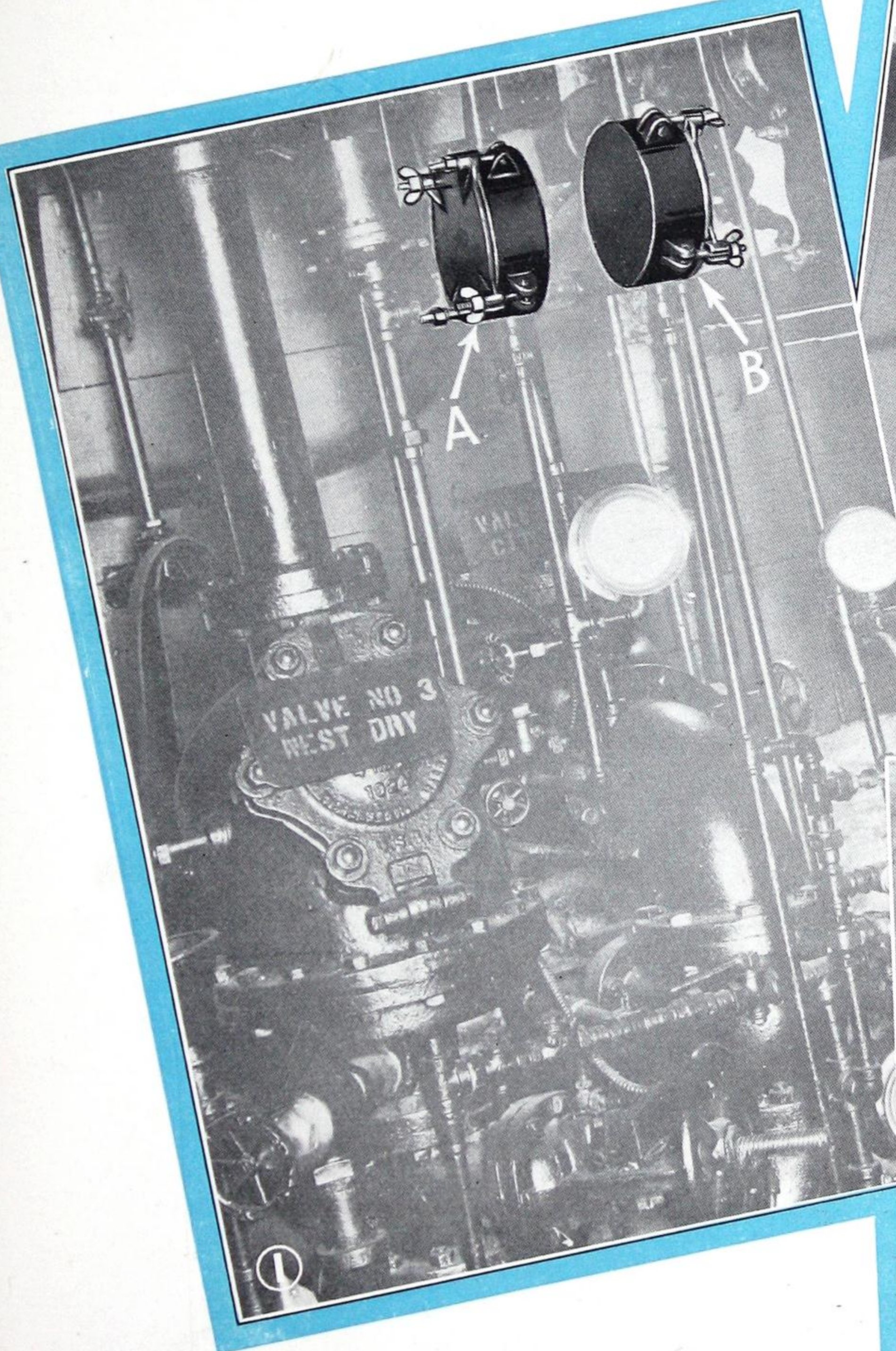




## SPRINKLER SUPERVISORY SYSTEMS



The wires for the signalling system can enter the protected building either at the roof or at ground level and are carried in standard conduit to the devices installed in the tank (when there is a tank) and in conduit, usually placed alongside the sprinkler riser to the basement of the building. In the basement conduit is installed on the ceiling for containing the wires to shut-off valve and alarm valves and from these valves and the riser conduit to transmitter cases.



- 1—Dry Pipe System. A—Dry Valve Alarm Switch.  
B—High and Low Air Pressure Switch.  
2—Gravity Tank with Supervisory water level and temperature devices. A—Float. B—Thermometer.  
3—Wet Pressure Switch.





## SPRINKLER SUPERVISORY SYSTEMS



### *Mechanical Rectifier*



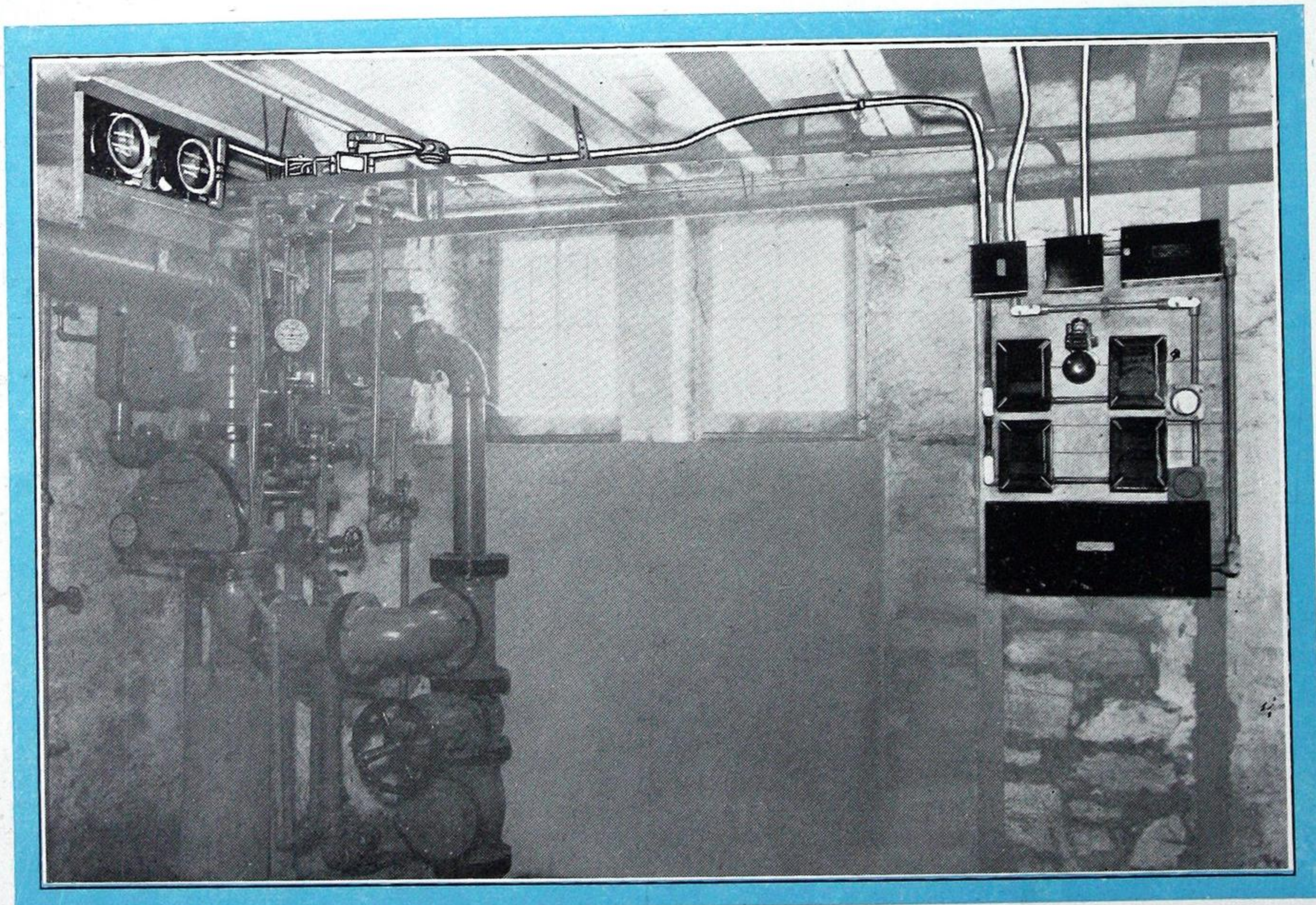
LOCAL energy is supplied by the installation of a small storage battery in connection with a mechanical rectifier, which takes up but very small wall space.

As all alarm valves are not suitable for the devices used in the Sprinkler Supervisory System, the Dominion Messenger & Signal Co. Limited should be consulted in order that unnecessary expense in the installation of the sprinkler system itself may be avoided.

In some instances connection is made between the Sprinkler system and automatic, steam, or hand pumps for maintaining excess pressure above the alarm valves. The Dominion Messenger & Signal Co. Limited will always be glad to advise when such measures are necessary.

### *Manual Fire Alarm Box*

A Manual Fire Alarm Box is also installed as a part of each system. This box is connected with the Central Station for use in sending in a fire alarm should a fire be discovered prior to the opening of the sprinkler heads. To operate this box it is only necessary to break the glass and pull down the lever.



*Sprinkler Supervisory Installation as applied to dry pipe system.*





## SPRINKLER SUPERVISORY SYSTEMS



**T**HE circuits between the subscribers' premises and the D.M. & S. Central Station are under constant electrical supervision at all times. Should trouble occur from any cause whatsoever, an immediate warning signal is received in the Central Station and steps are taken at once to clear the trouble.

*Circuits  
Under  
Constant  
Supervision*

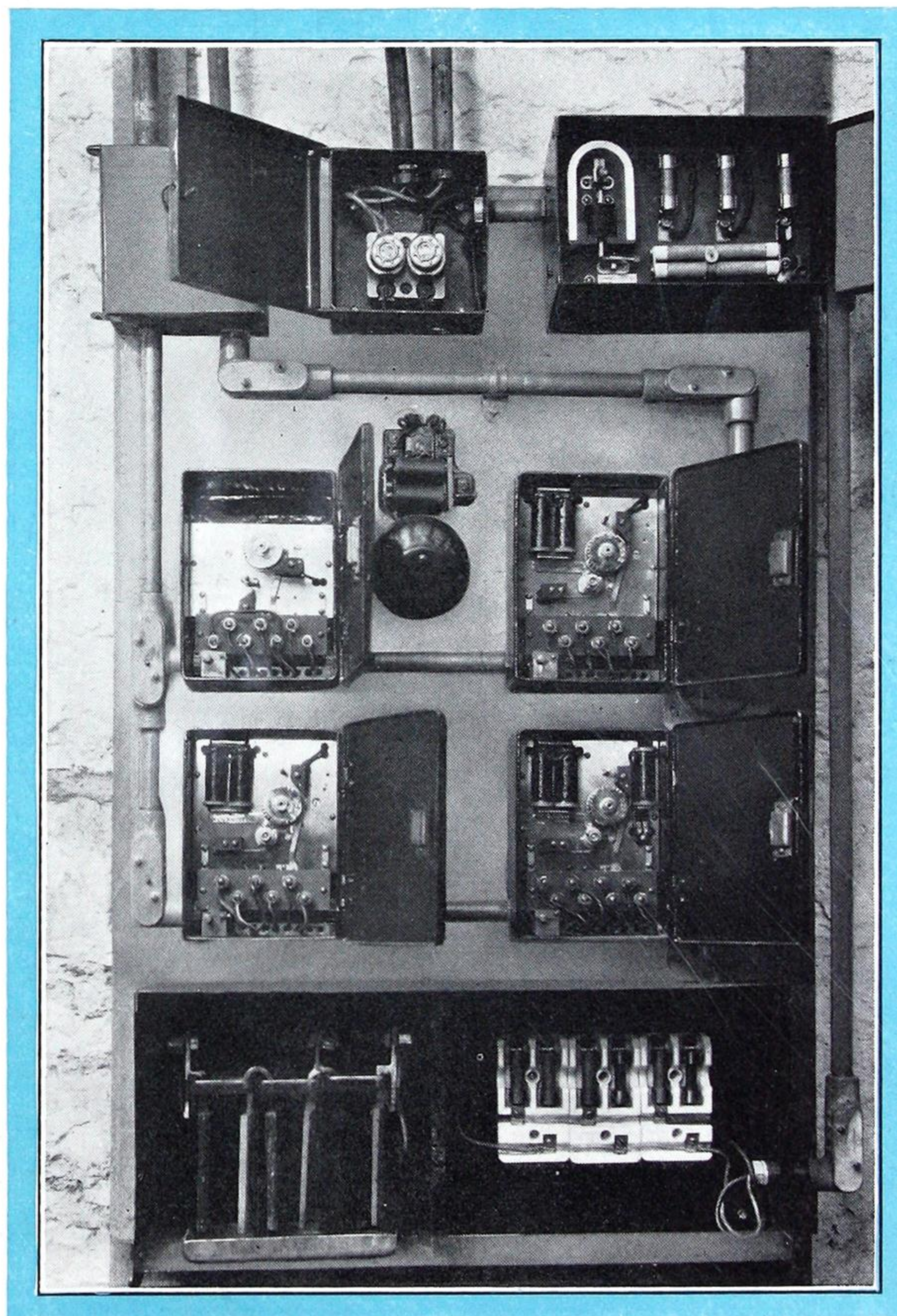
Having years of experience in electrical methods of property protection service, D.M. & S. Central Stations are thoroughly up-to-date in safeguarding the interests of subscribers. Equipped with the latest approved devices, co-operating with insurance interests and Fire Underwriters at all times, D.M. & S. Central Station Sprinkler Supervisory Service is the last word in this type of property protection.

*Central  
Stations*

### *Maintenance and Inspection*

The Dominion Messenger & Signal Company Limited maintains all equipment on the subscribers' premises in proper working order after the system is installed. The system and service are under the constant inspection of the Central Station and tests are made periodically to insure its proper functioning at all times.

**T**HE Central Station records of the Dominion Messenger & Signal Co. Limited, show that the average elapsed period between the receipt of a waterflow (or fire alarm) signal and the restoration signal, indicating that the Sprinkler System has been turned off, is four minutes and forty seconds.



*Another type of a Sprinkler Supervisory Transmitter installation.*





## SPRINKLER SUPERVISORY SYSTEMS



### **Fire Insurance Underwriting Boards**

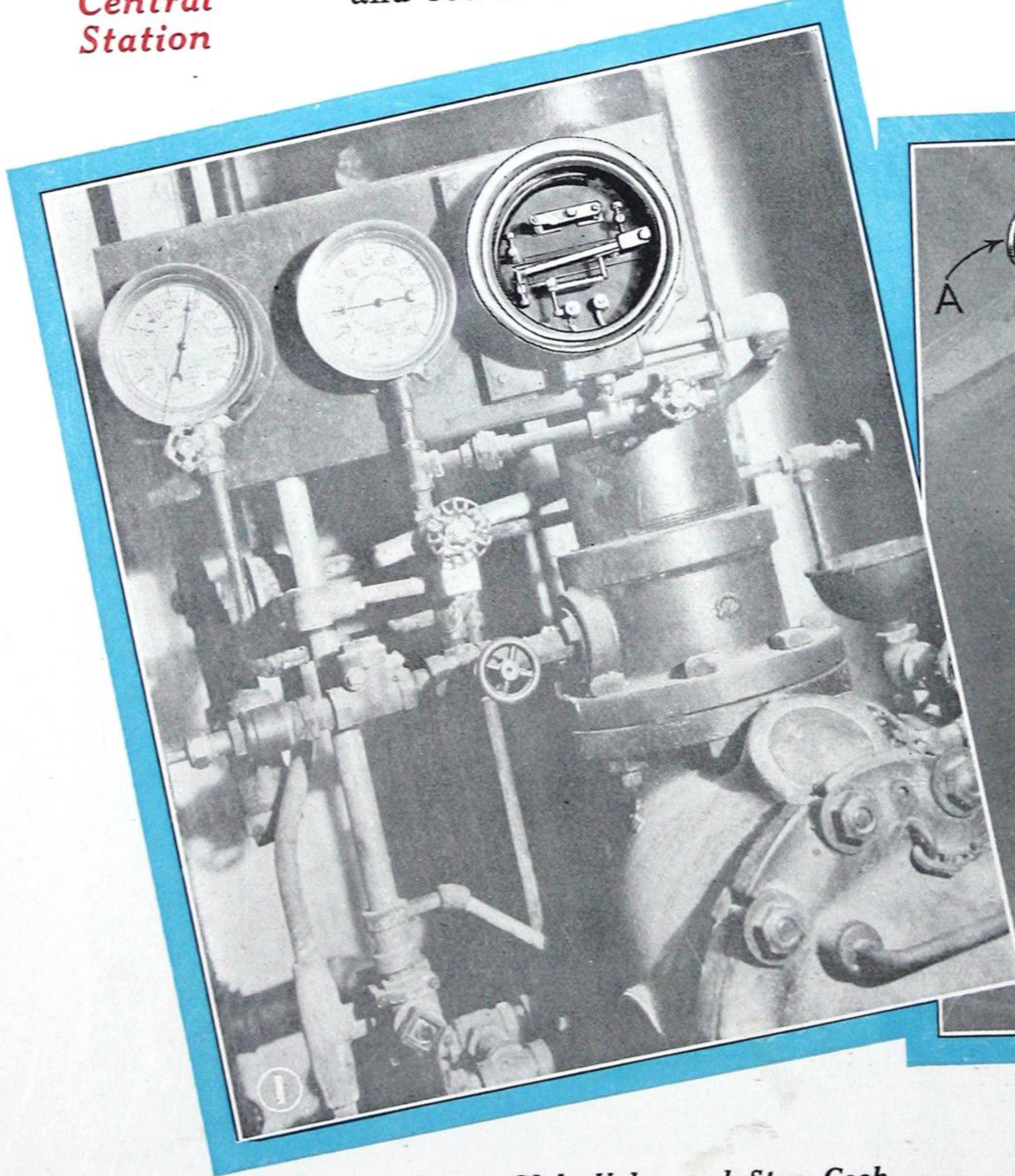
Fire Insurance Underwriting Boards accept the Sprinkler Supervisory System in place of a watchman on nights, Saturday afternoons, Sundays and holidays. When the Sprinkler Supervisory Service replaces the watchman there is a direct saving of from fifteen to eighteen hundred dollars per year in watchmen's wages. Concessions in rates are also made in some instances for Sprinkler Supervisory Service for the additional protection afforded even when employment of a watchman for special reasons is desirable or necessary.

### **Service Contracts**

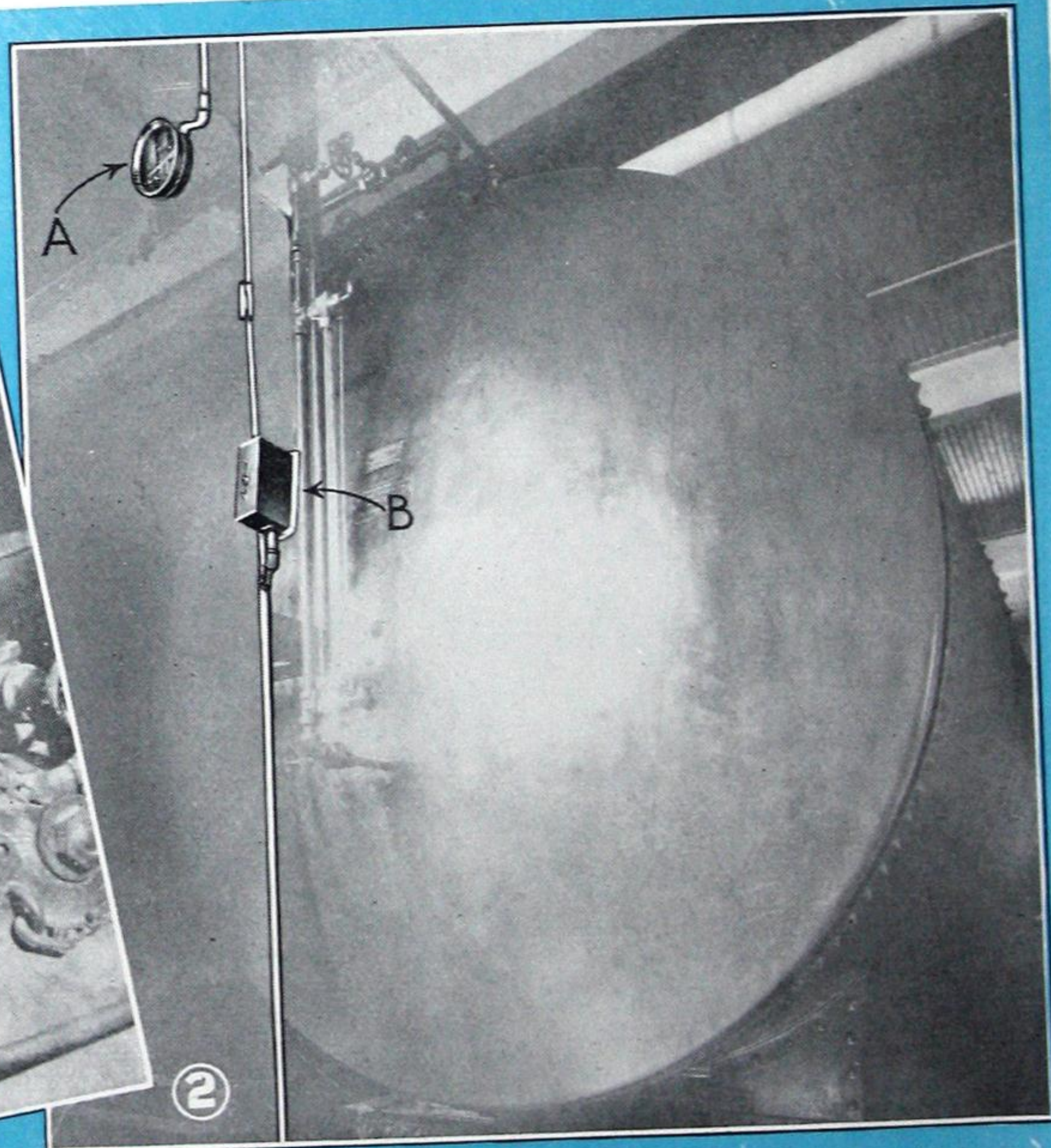
The devices used for Sprinkler Supervisory Service are installed by the Dominion Messenger & Signal Co. Limited under contract for a term of years on a rental basis. The annual rental charge varies according to the size of the Sprinkler System and the number of connections to be supervised by the Sprinkler Supervisory Service. In addition there is a moderate fee to help cover the cost of installing the system.

### **Visit Our Central Station**

It incurs no obligation to visit one of our Central Stations, inspect the equipment and see at first hand the system in operation.



1—Pressure Gauge, Globe Valve and Stop Cock attachments as applied to Sprinkler Dry Valve.



2—Another type of pressure gauge and tank float applied to Sprinkler Pressure tank.

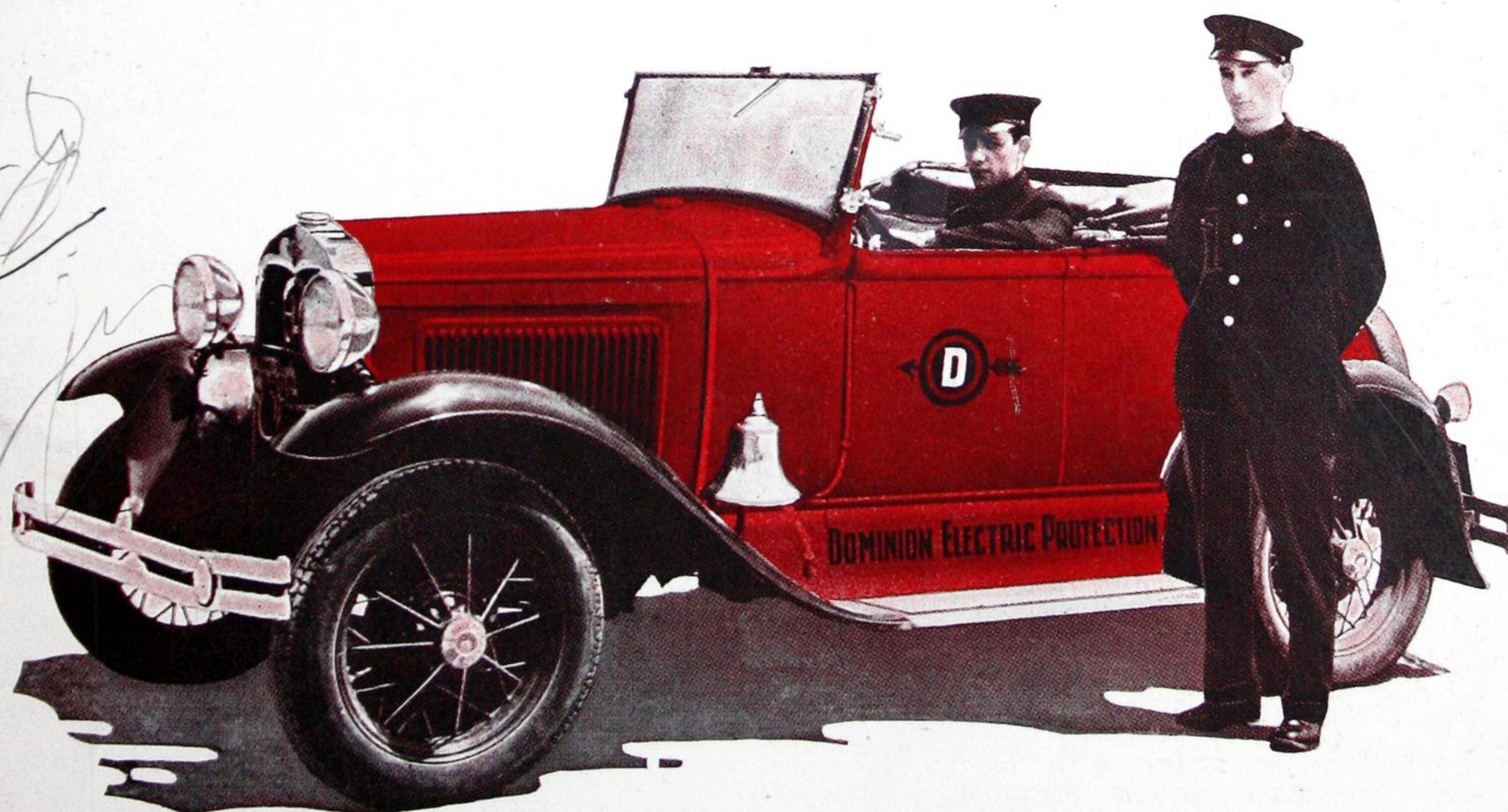
A—Pressure Gauge.  
B—Tank Float.





## *Nine Reasons Why Every Sprinkler System Should be Supervised by the D.M. & S. Service*

1. When water flows, D.M. & S. Service sends immediate alarm of fire to a Central Station and through it to the fire department, the Fire Underwriters, and to the owner or his representative.
2. D.M. & S. Service gives immediate warning when any valve is closed.
3. D.M. & S. Service gives immediate warning when water in a gravity tank is dangerously low.
4. D.M. & S. Service gives immediate warning when temperature of water in a gravity tank approaches a point where it is likely to freeze.
5. D.M. & S. Service gives immediate warning when air pressure in a dry system is dangerously high or low.
6. D.M. & S. Service gives immediate warning when water in a pressure tank varies beyond a safe margin from normal conditions; in other words, when water is too high or too low, or when air pressure in such tank is too high or too low.
7. D.M. & S. Service gives immediate alarm to a Central Station in case of accidental leakage of water.
8. D.M. & S. Service keeps Underwriters informed daily of conditions of sprinkler protection in risks they are underwriting.
9. D.M. & S. Service, in addition to constant electrical tests of all devices, provides periodical inspection and testing of sprinkler equipment and supervisory attachments.

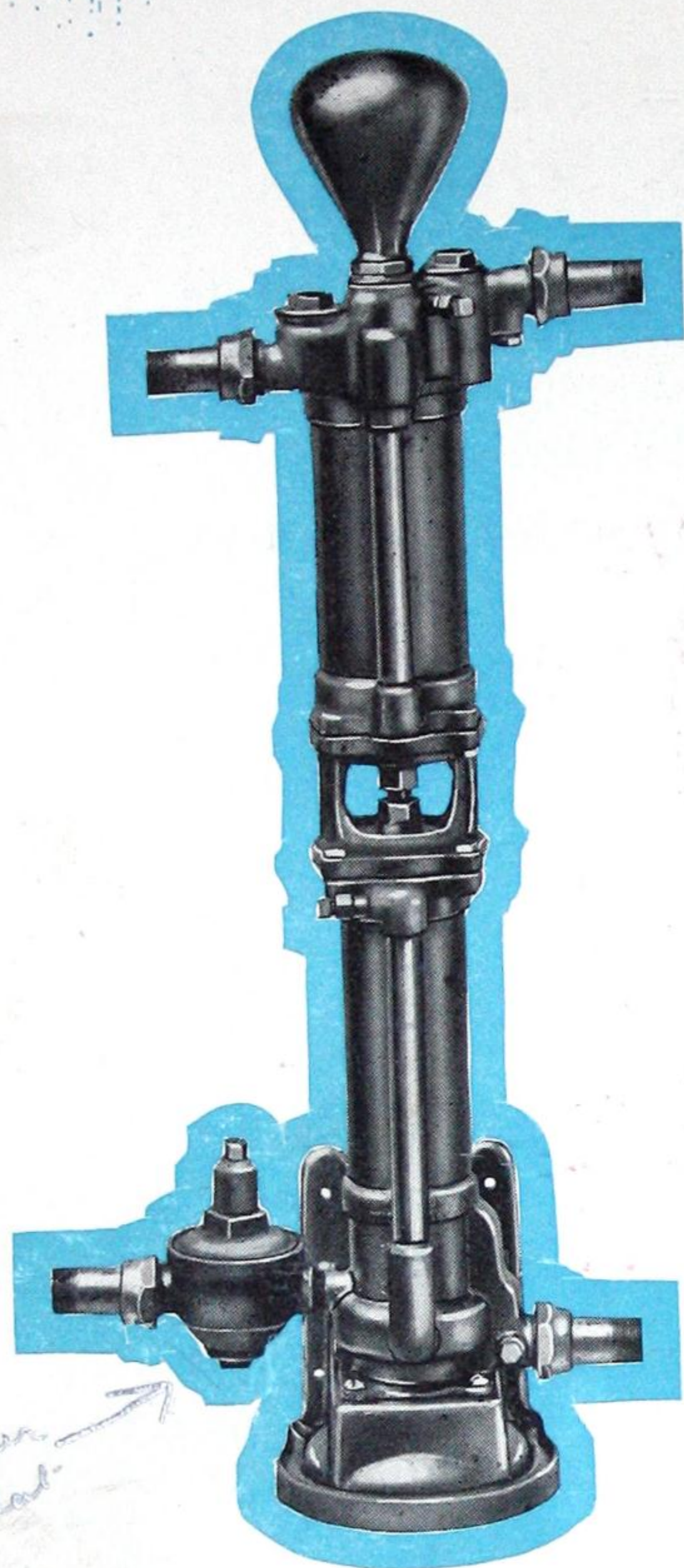


*A Service Car—Used for answering alarms from subscribers' premises.*





## SPRINKLER SUPERVISORY SYSTEMS



### *Champion Automatic Water Lift or Pump*

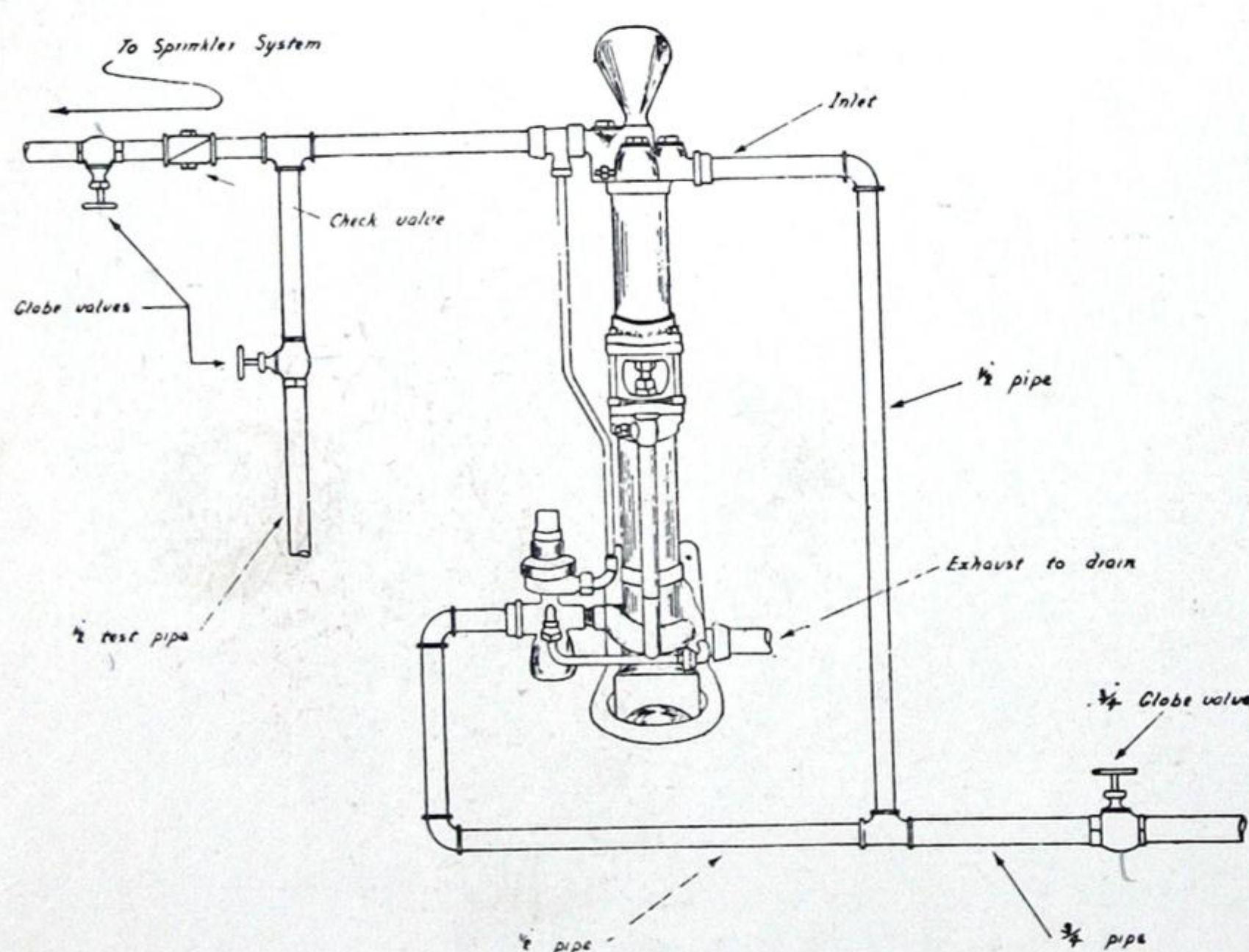
It is necessary that constant pressure be maintained in the Sprinkler System to eliminate unnecessary alarms due to water surges. To maintain such pressure we can offer an automatic pump that will keep the pressure in the Sprinkler System at the proper level.

This pump—The Champion Automatic Water Lift—is easily operated. It is equipped with a gate valve and can be stopped and started at will, working automatically if so desired.

It is a labor saving device; built on correct hydraulic principles, and once installed requires no attention.

### *Some of Its Many Favorable Qualities*

1. Its construction and upright position eliminates friction and wear.
2. Its valves are easily accessible.
3. There is only one set of stuffing boxes and these can be tightened from the outside.
4. The packings are made from special material.
5. The Champion Pump cannot possibly waterhammer.
6. If connected, as per instructions, will almost double its initial pressure.
7. It is positively foolproof.
8. A twist of the wrist puts it in operation.
9. It is fully guaranteed and sold at a price that defies competition.



Pipe connections for  
**CHAMPION WATER PUMP**  
to maintain excess pressure in  
Automatic Sprinkler System

The installation of the Champion Automatic Water Lift is recommended by the Canadian Fire Underwriters' Association. Hundreds of these pumps are already in use by representative business firms for the proper maintenance of excess pressure in the Sprinkler System.





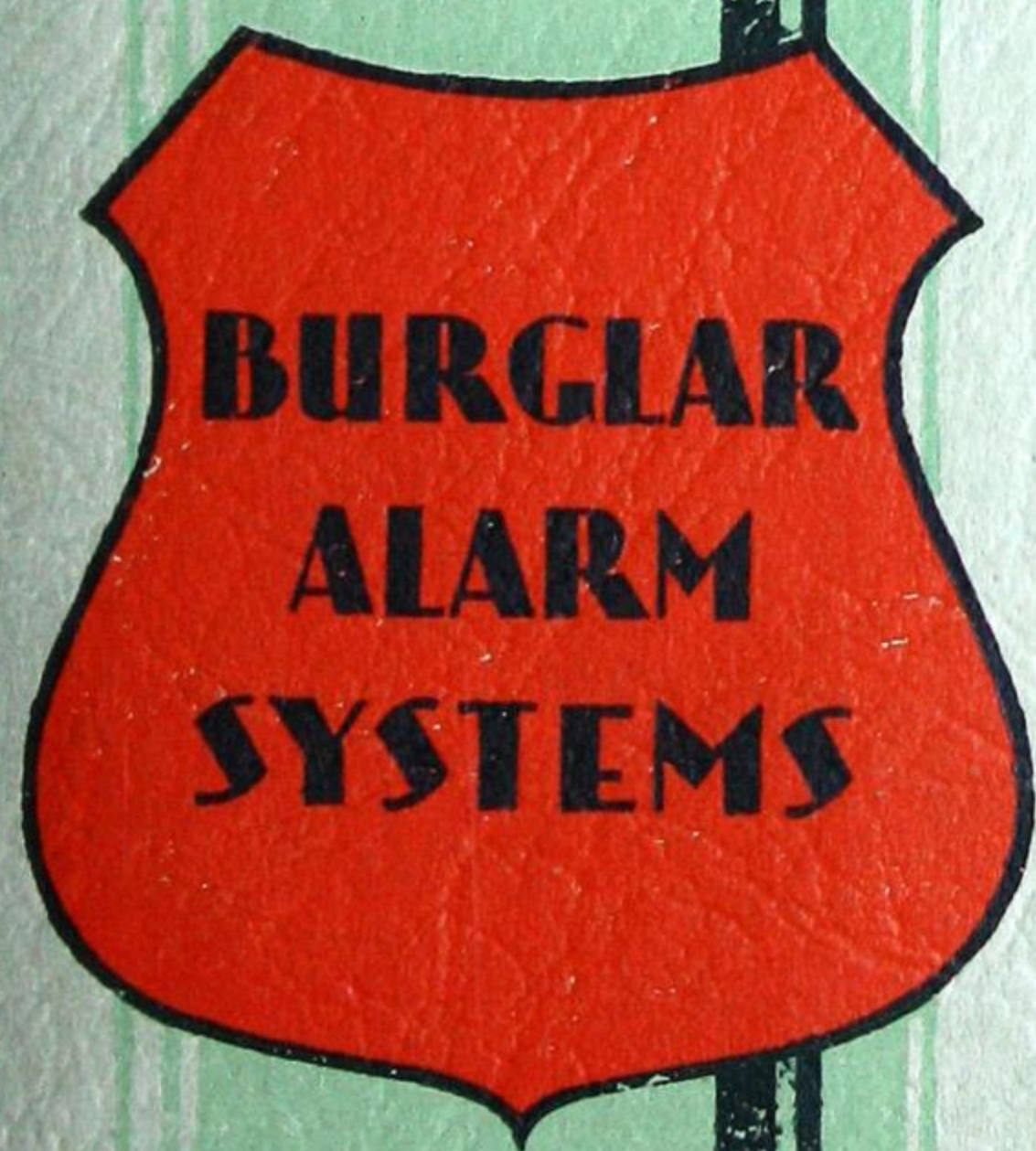
THIS SIGN APPEARS ON A  
DOOR OR A WINDOW  
WHERE  
DOMINION PROTECTIVE SYSTEMS  
ARE INSTALLED







# DOMINION PROTECTIVE SYSTEMS



**DOMINION ELECTRIC PROTECTION  
COMPANY**

TORONTO, MONTREAL, QUEBEC, OTTAWA  
HAMILTON, LONDON, WINNIPEG.



## TO ARCHITECTS:

**O**UR Engineering Department will gladly co-operate with the architectural profession in preparing designs, estimates and specifications for the installation of our standard systems, modifications thereof or to meet special or unusual situations. In planning new buildings it is well for Architects to consult with the Dominion Electric Protection Company before the erection of such buildings where Dominion Electric Protective Systems are to be installed, so that the necessary conduits and wiring can be provided.

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# BURGLAR ALARM SYSTEMS

**T**HE Dominion Electric Protection Company manufactures, installs and operates Electric Signalling Systems for the protection of property from fire and theft. These systems include Burglar Alarms; Automatic Fire Alarm Systems; Watchman Patrol and Manual Fire Alarms; and Sprinkler Supervisory Systems. Central Stations are maintained in the larger cities of Canada where staffs of experienced officers are on duty day and night to answer alarms from premises equipped with these systems.

This booklet describes the Burglar Alarm Systems. If information is desired regarding our other systems, please communicate with any of our offices or with the head office of the Company located at 92 Adelaide Street West, Toronto, Ontario.

In cities and towns where Central Station Service is not available, local or self-contained systems can be installed similar to the systems herein described. In place of being connected with a D.E.P. Central Station, such premises are connected to a local Fire or Police Department or some other central point as the conditions may require.



## Protection Against Burglary

**P**ROTECTION against burglary is a matter of vital interest to every business establishment carrying large and valuable stocks of merchandise, securities, bonds and currency.

Burglary is not a theory, but a fact that must be dealt with in a serious manner. Bankers, merchants and manufacturers are obliged to reckon with this condition and to protect their stocks, money and securities against any monetary losses as well as disruption to business itself when burglary is attempted.

The need to-day for protection is as great as ever. It is a recognized fact that burglary can only be successfully combatted by Electric Burglar Alarm Protection. Just as long as valuable properties are left exposed they will be the prey of burglars and losses will continue to occur day by day in the future as in the past. Experience has shown that these losses range from a few hundred to a great many thousands of dollars.

The Dominion Electric Protection Company has had years of experience in the installation and operation of Burglar Alarm Systems that dates back twenty to thirty years. Every year has seen remarkable changes and improvements in the systems themselves, as well as in the methods of operation, until to-day these systems are as nearly perfect as it is humanly possible to make them.



*A typical Central Station of the Dominion Electric Protection Company where Burglar Alarms are constantly supervised.*



# BURGLAR ALARM SYSTEMS



*Depicting an attempted burglary of premises equipped with a D.E.P. Burglar Alarm System. The main picture shows the burglars at work. The breaking of the glass and tinfoil on the window caused the alarm to flash in the Central Station, as shown in picture to the right. The lower picture to the left shows the capture of the burglars by the D.E.P. officer.*

A Central Station Burglar Alarm System is the safest and surest way of providing protection nights, Sundays, Saturday afternoons and holidays or during any other periods when the business is closed. The premises to be protected are so equipped that any tampering or attempted entry will instantly sound the alarm in the Central Station. This alarm will occur whether the entry is attempted through a window, a door or a transom, a wall, a vault or a safe, or, in fact, through any protected part of the building. The moment the "break" is made a signal is instantly transmitted to the Central Station and before the unsuspecting thief can cause any serious damage or decamp with the desired booty, the guards from the Central Station as well as the police are on the scene.

Central Station Service is available in the larger cities of Canada, including Toronto, Montreal, Quebec, Ottawa, Hamilton, London and Winnipeg. At

**Central  
Station  
Service**



# BURGLAR ALARM SYSTEMS

**Each System  
Connected  
to the Central  
Station by an  
Individual  
Wire**

these Central Stations experienced staffs are on duty at all hours to answer alarms from subscribers' premises and to look after their interests in the best possible manner.

The equipment installed in these Central Stations is standard and of the best type procurable for serving the subscribers connected with them. The instruments are so sensitive that the slightest tampering will cause the alarm to register in the Central Station.

Every D.E.P. Burglar Alarm is connected to the Central Station by an individual line. The instant the burglar enters he automatically announces his presence in the Central Station. Try as he may he cannot impair the efficiency of the equipment by cutting wires. Tampering with or cutting the wires will instantly flash the alarm. In other words, the D.E.P. Systems cannot be defeated by the thief.

**Every Alarm  
is Thoroughly  
Investigated**

The interior of one of our Central Stations is shown. On the switchboard there is an individual instrument for every subscriber connected directly from the Central Station switchboard to the protected premises. If a window blows open during the night; if a door is found unlocked by the policeman; if a burglar

Form 6

### Operator's Report

Line No. 82 Central Station Winnipeg

Name Imperial Tobacco Co. Ltd.

Address 82 George St. Floor Roof

Rep't. by F. Moynes Date

TIME REPORTED 1930 JUL 14 AM 1 15

<input checked="" type="checkbox"/> Break	<input type="checkbox"/> Wrong Signal	<input type="checkbox"/> Short Ckt.
<input type="checkbox"/> Cross	<input type="checkbox"/> Line Trouble	<input type="checkbox"/> Wire Crossed
<input type="checkbox"/> Intermittent Cross	<input type="checkbox"/> Broken Wire	<input type="checkbox"/> Loose Opening
<input type="checkbox"/> Early Opening	<input type="checkbox"/> Broken Foil	<input type="checkbox"/> Corr'd Contact
<input type="checkbox"/> Unusual Opening	<input checked="" type="checkbox"/> Broken Screen	<input type="checkbox"/> Re-Opening

Keys available ☒ Yes ☐ No Keys Used ☒ Yes ☐ No

SIGNAL IN 1930 JUL 14 AM 1 25

TIME O.K. 1930 JUL 14 AM 3 00

RETURNED 1930 JUL 14 AM 3 12

Visited by D. Haight P. McLean & Police.

Memo. 2 Burglars caught, no st missing.

### BURGLAR ALARM REPORT

504

Holt Renfrew & Co.,  
Yonge & Adelaide.

	OPENING	CLOSING	REOPENING	RECLOSING	REOPENING	RECLOSING
MON.	7:29	10:57	11:00	11:00		
TUE.	3:45	3:45	7:30	11:02		
WED.	3:44	3:44	7:30	12:11		
THUR.	3:45	3:45	7:31	11:03		
FRI.	3:46	3:46	7:31	12:05		
SAT.	3:45	3:45	7:31	12:05		
SUN.	6:27	6:27	7:26	2:10	11:00	11:00
			1:14	1:39	11:00	11:00

WEEK ENDING JUL. 13 1930.

DOMINION ELECTRIC PROTECTION COMPANY

FORM 41

Report as recorded in Central Station on receipt of an alarm from premises equipped with a Burglar Alarm System.

Report as sent to subscriber showing time protected premises were opened and closed during preceding week.



## B U R G L A R   A L A R M   S Y S T E M S

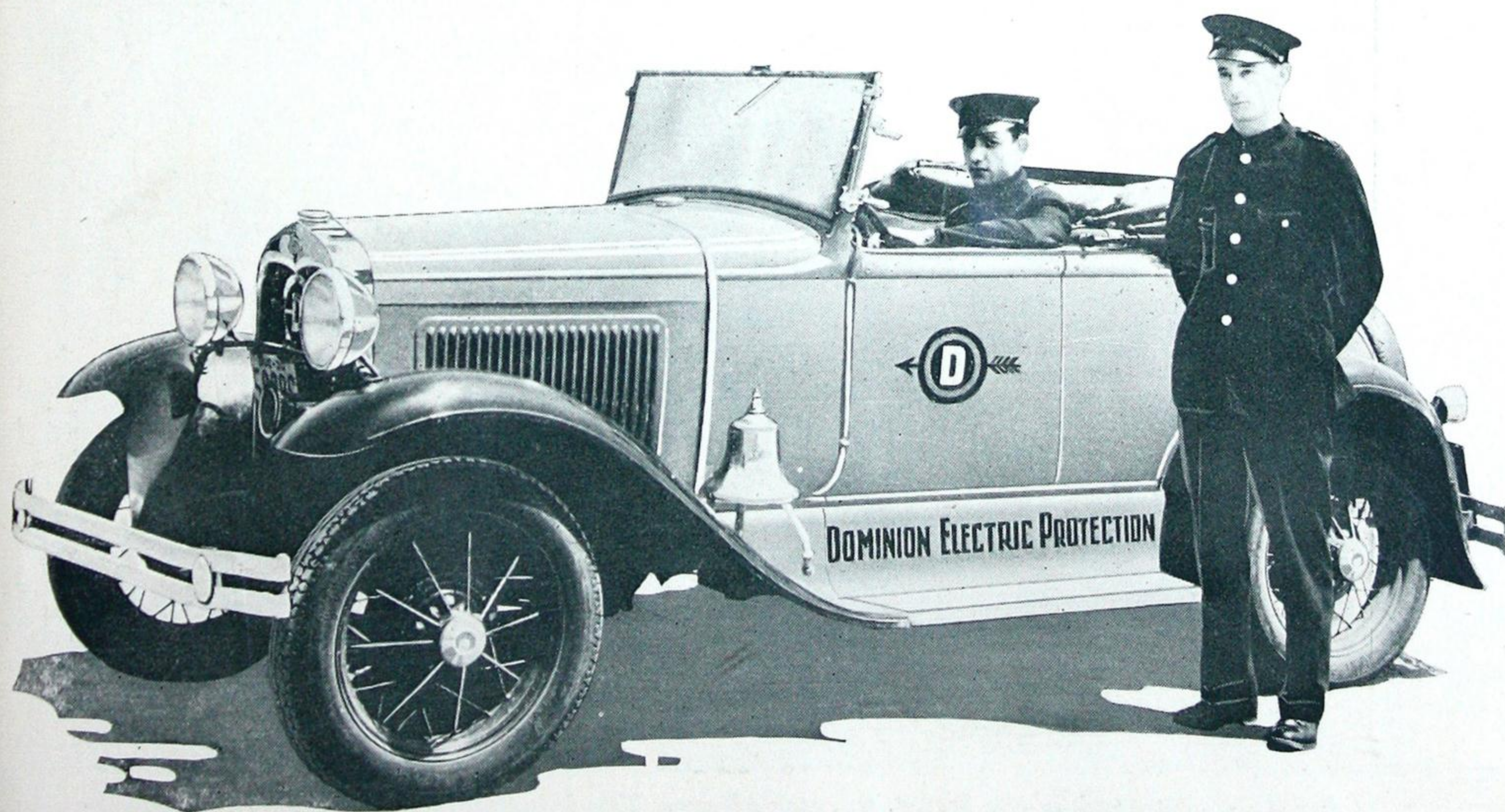
attempts to enter or for any other cause the protected premises are disturbed, instant warning is given the Central Station operators and guards investigate the alarm no matter what may be the cause. First of all a buzzer sounds, a red light flashes and guards speed in a motor car to the protected premises.

Often it isn't a burglar at all, but the owner or an employee who has entered the premises. He is required to sign a card, which is compared with the signatures on an instruction card carried by the guards giving the signatures of the parties authorized to open the protected premises. If an unauthorized party is found on the premises, he is held until the guards secure his release from the subscriber or failing in that he is taken into custody by the police.

The D.E.P. Burglar Alarm System, not only protects against robbery, but also provides a check on employees going in and out.

A complete record of all openings and closings, showing the exact time, is furnished weekly to the subscriber. An employee or even a member of the firm cannot open the protected premises during the closed period without the alarm being thoroughly investigated, and the weekly report will show the time re-openings and closings occurred. Many firms employ the Burglar Alarm Protection for the express purpose of checking their employees and thereby preventing carelessness and dishonesty. Another feature is that doors and windows cannot be forgotten in closing for the night. Until all protected openings are properly closed a "closed" signal will not be received from the Central Station.

*Prevents Care-  
lessness and  
Dishonesty  
on the Part of  
Employees*



*A Service Car—used for answering alarms from subscribers' premises.*



## *Protection for Mercantile Establish- ments*

**R**ETAIL stores, including jewelry, fur, departmental, dry goods, silk and others; wholesale warehouses and manufacturing plants, are completely equipped with a Dominion Burglar Alarm System so that any attempted entry will flash the alarm in the Central Station.

Windows, doors, skylights, coal holes, traps and transoms are equipped with contact devices and fine wire. Windows are also protected with screens, all wired in such a way that tampering with the protected openings will cause an alarm to sound in the Central Station.

## *Protecting Doors*

Doors are usually protected by the use of wooden screens, as illustrated. These screens are equipped with fine copper wire that carries the electric current. The screen is attached to the door on the inside and is connected into the Burglar Alarm circuit. Springs are also installed on the door so as to cause an alarm whenever the door is opened. Frequently springs only are installed on the doors, when it is not considered necessary to protect them against a forced entry through the door.

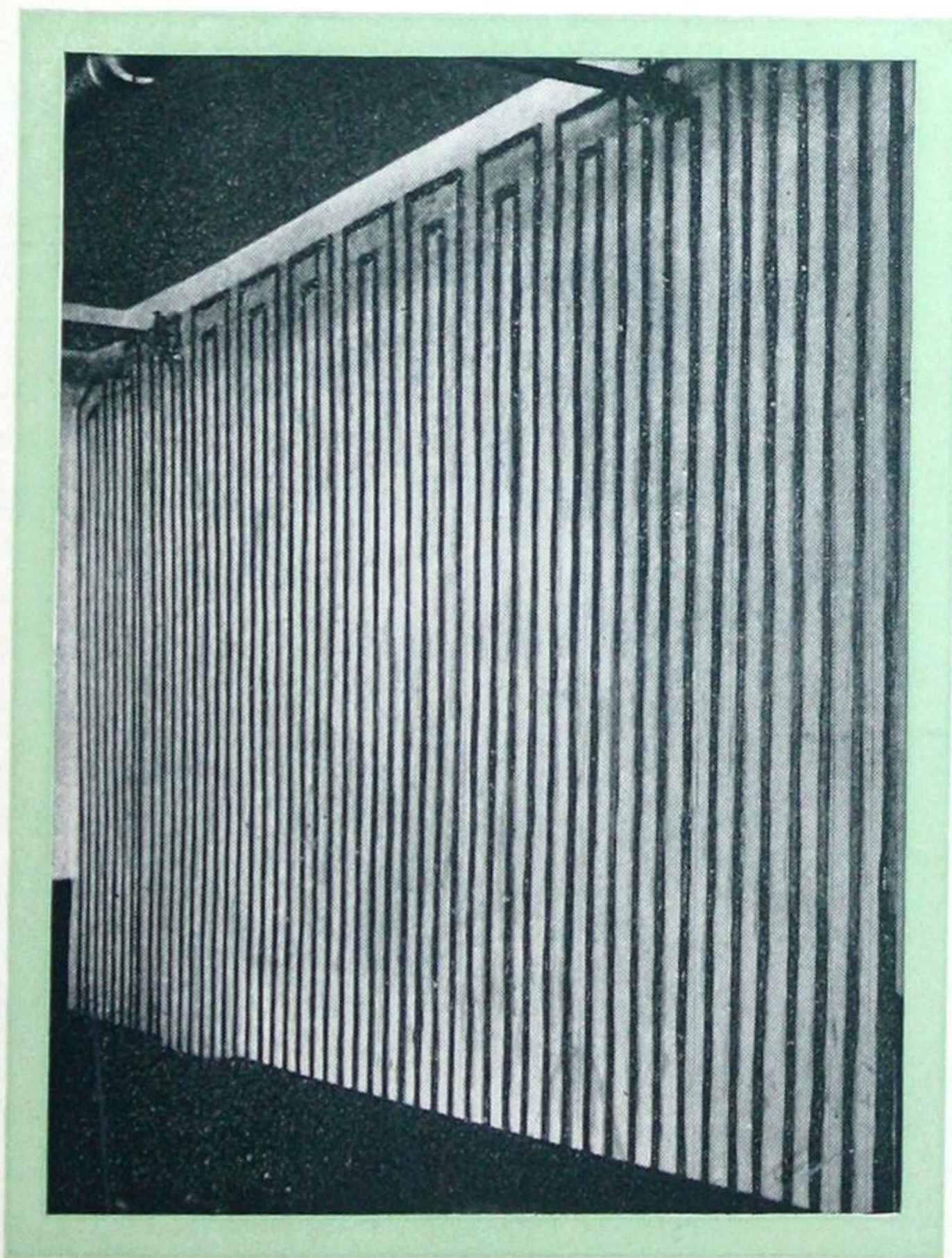
In some cases where it is not desirable to install screens, the glass panels are protected by means of tinfoil. The foil is run around the glass about 3" from the frame of the door, and carries the electric current. Should the glass be broken at any point, the cracks radiating out to the edge cause the foil to break, thus operating the alarm. Any tampering with or forced entry through doors so protected will instantly cause an alarm in the Central Station.



*A fur store protected by the D.E.P. Burglar Alarm. The front windows and doors are protected with tinfoil, as well as contact springs on the doors. Any attempt to enter such a protected store would flash the alarm in the Central Station.*



# BURGLAR ALARM SYSTEMS



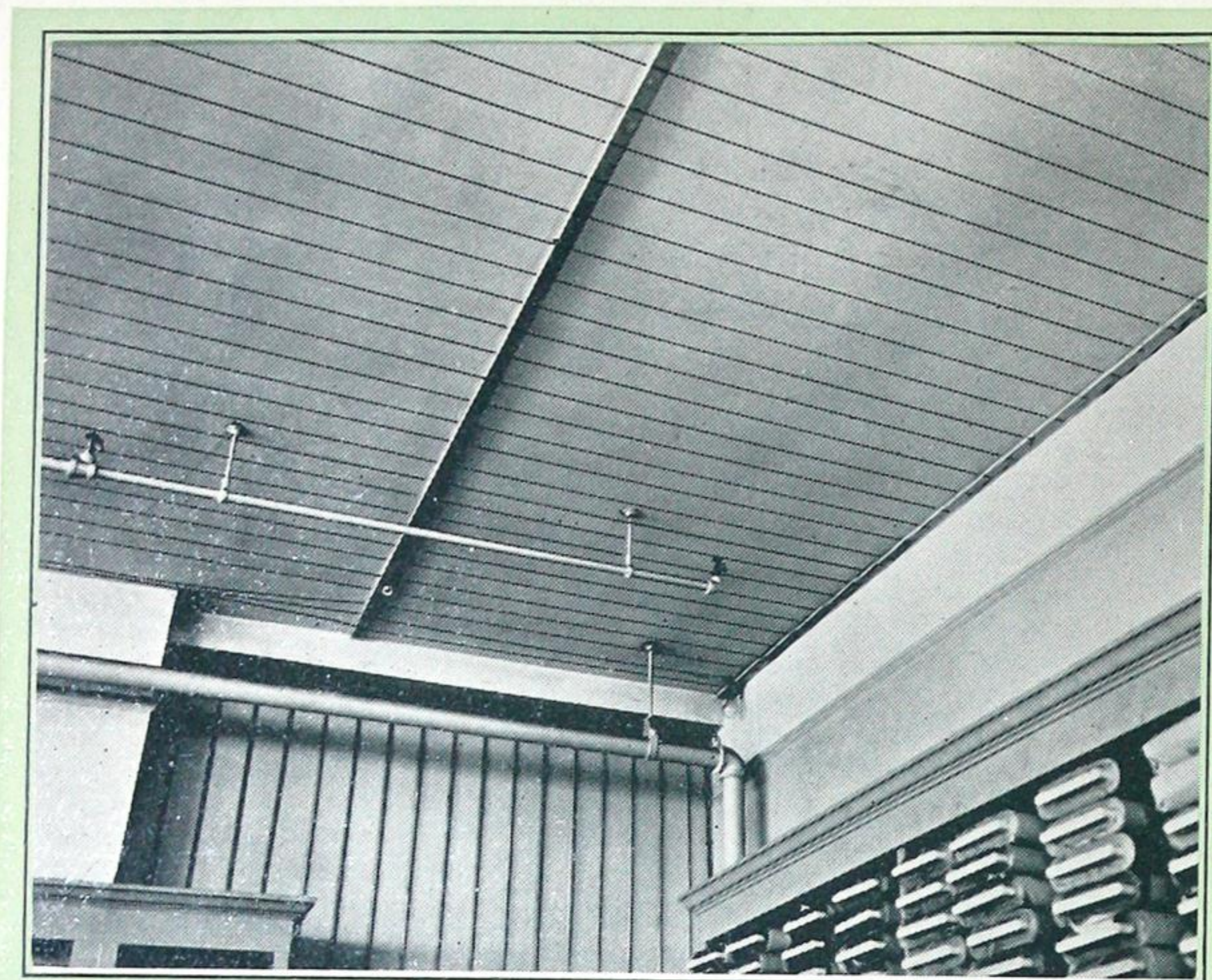
*Upper Left—A door protected by a Burglar Alarm screen and contact springs.*

*Upper Right—A door equipped by means of tinfoil on the upper part and a solid panel containing electric wiring on the lower section.*

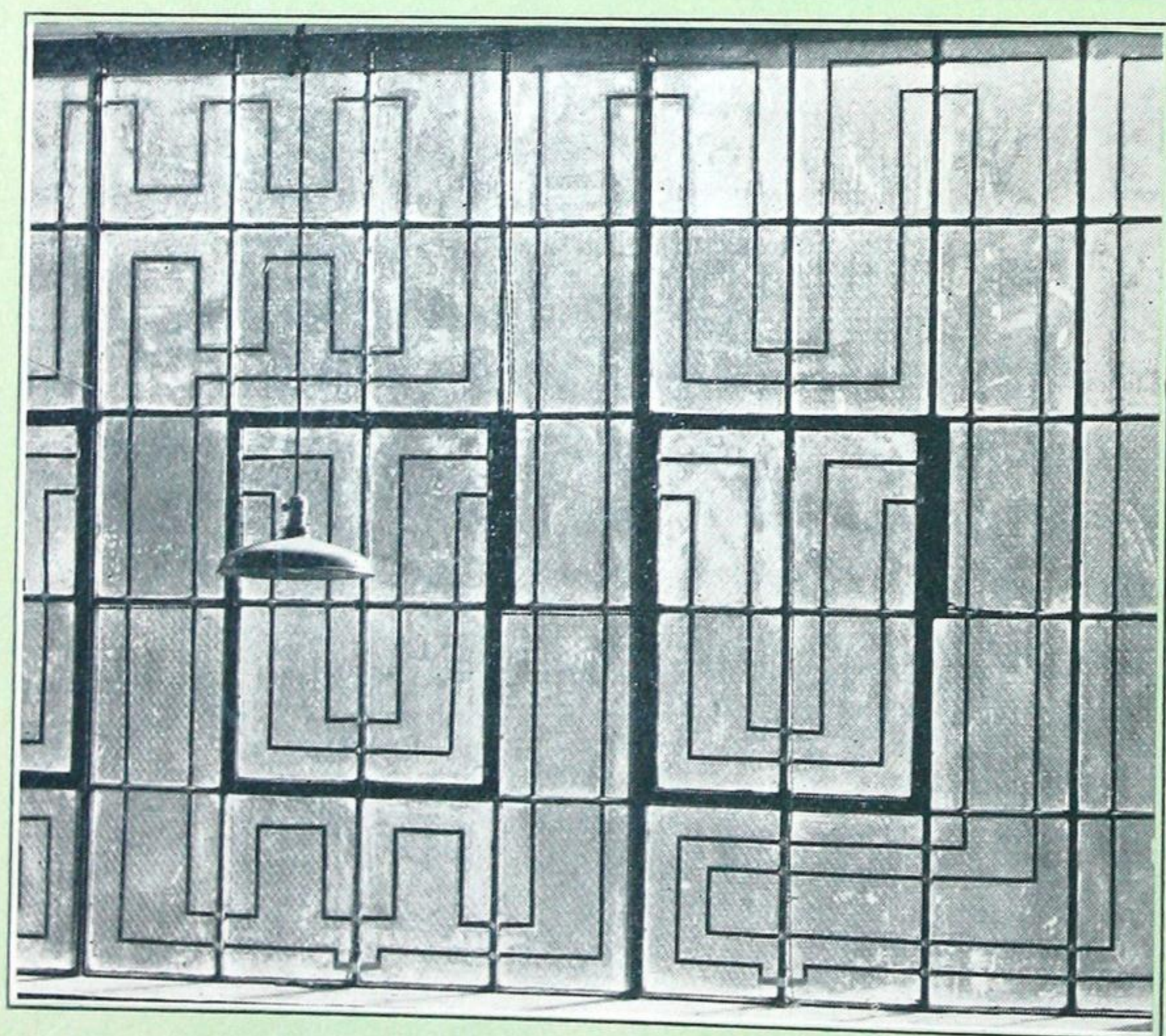
*Lower Left—A wall as equipped with the Burglar Alarm wiring before the wall paper is applied.*

*Lower Right—A window equipped with tinfoil and contact springs. The breaking of the glass or opening of the window would cause the alarm to sound.*





*Ceiling equipped with Burglar Alarm wiring. A burglar in attempting entry through a ceiling so protected, would flash the alarm in the [D.E.P. Central Station.*



*Plain metal window protected with tinfoil. The presence of a burglar would instantly be announced in the Central Station if a pane of glass was broken in this window.*

## *Protecting Windows*

Windows are protected by means of wooden screens, as described in connection with doors. These screens may be installed so that they are removable and can be taken down as desired. Where it is not necessary to remove the screens they are permanently installed.

Windows are also protected by means of foil which is run around the edge of the glass, carrying the electric current. Foil is used effectively in the protection of show windows where it is undesirable and practically impossible to apply screens. Contact springs are also installed on windows so that any movement will flash the alarm in the Central Station.

## *Protecting Skylights and other Openings*

Skylights and other large openings are usually protected by a wire lacing across the opening in both directions, or by means of wooden screens. The protection wires are not more than four inches apart and are so installed that it is impossible for anyone to enter without causing an alarm.

## *Protecting Walls, Partitions and Ceilings*

In many cases it is desirable to protect walls, (especially hall and party walls), partitions and ceilings as well. This is accomplished by wiring run in half round moulding applied to the wall and spaced not over four inches between centres. This stripping, as it is called, is applied so that little damage is done to the surface of the wall. On plastered walls with a smooth surface foil is applied and wall or decorative paper can be placed over the foil.



## *Protecting Floors*

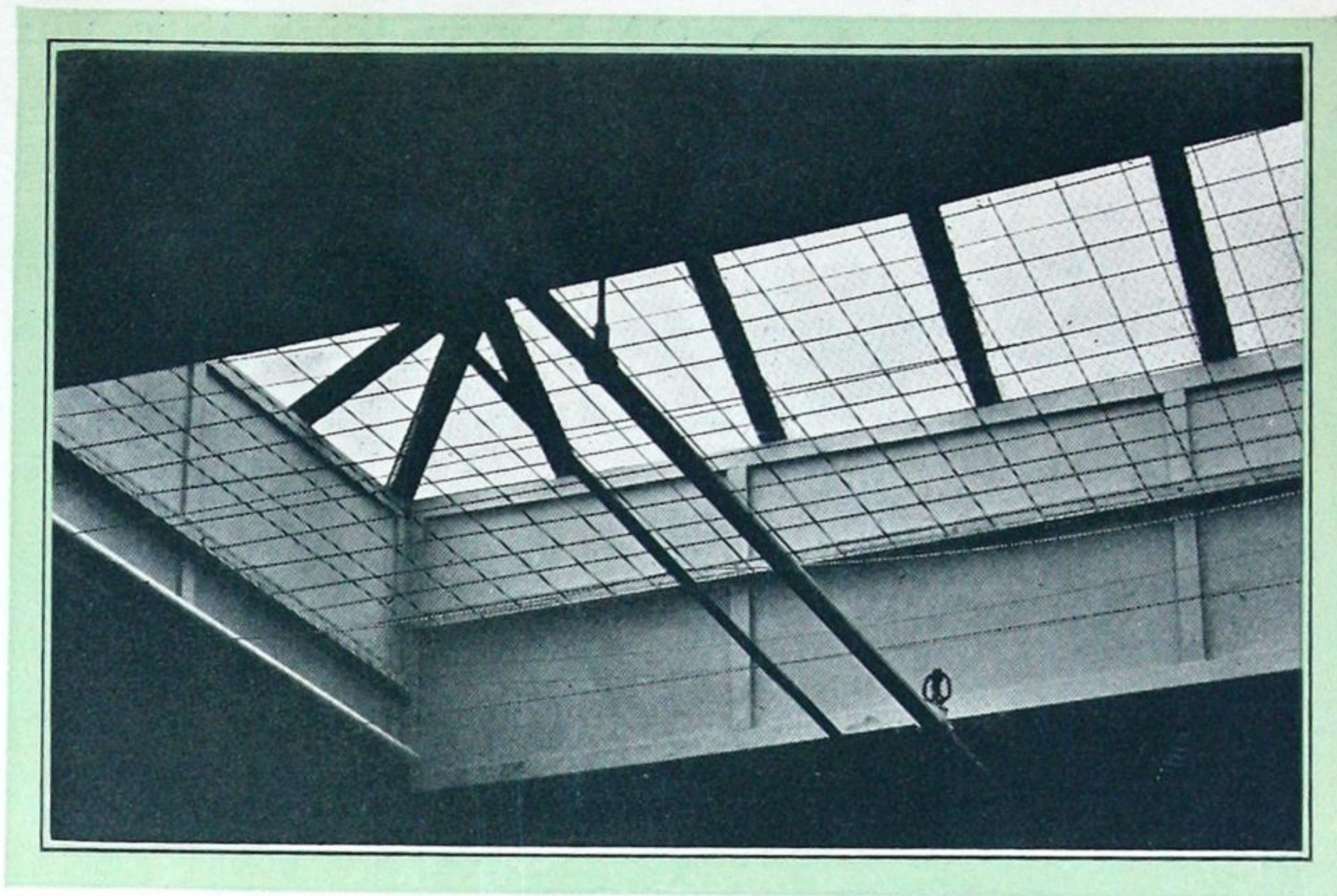
Usually it is not necessary to protect floors. If there is a basement or premises underneath that is considered a hazard and the outside openings are not protected, it is sometimes necessary to protect the floor. In such cases there are several methods for providing adequate protection.

The great majority of floors are covered with linoleum, and the protection consists of copper ribbon placed underneath the linoleum. A simpler method is by means of a floor trap. This device is placed on the floor by means of a cord stretched across the place to be protected. There is a spring in the trap that operates when the cord is broken or stretched, causing the alarm.

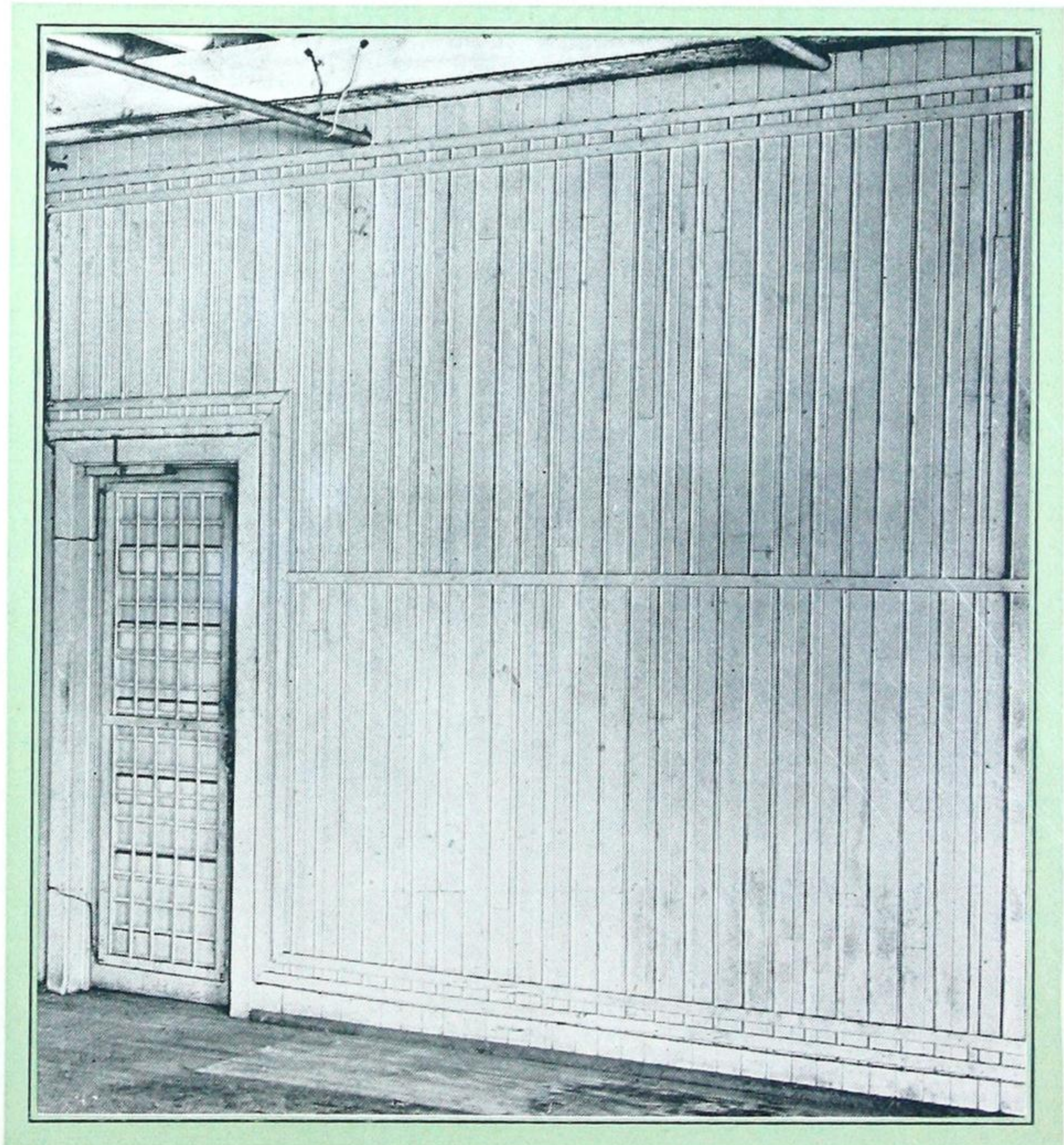
Where it is considered necessary to protect floors our representative will gladly advise as to the type of protection to suit the requirements.

## *Special Protection for Rooms, Show Cases and Storage Cabinet*

In the case of a store, either some particular room, show case, storage cabinet or the doors and windows themselves are protected. If a room or a storage cabinet, a lining similar to a large screen containing metallic conductors is installed on all sides, including any windows or door openings. Show cases are protected by spring contact devices on sliding or folding doors and by applying to all glass surfaces a narrow strip of metal tin-foil. The breaking or even cracking of the glass and the opening of any of the doors causes an alarm to sound in the Central Station.



*Skylights are usually accessible and a favorite point of attack by burglars. The skylight illustrated here is equipped with protective wiring in connection with the Burglar Alarm System.*

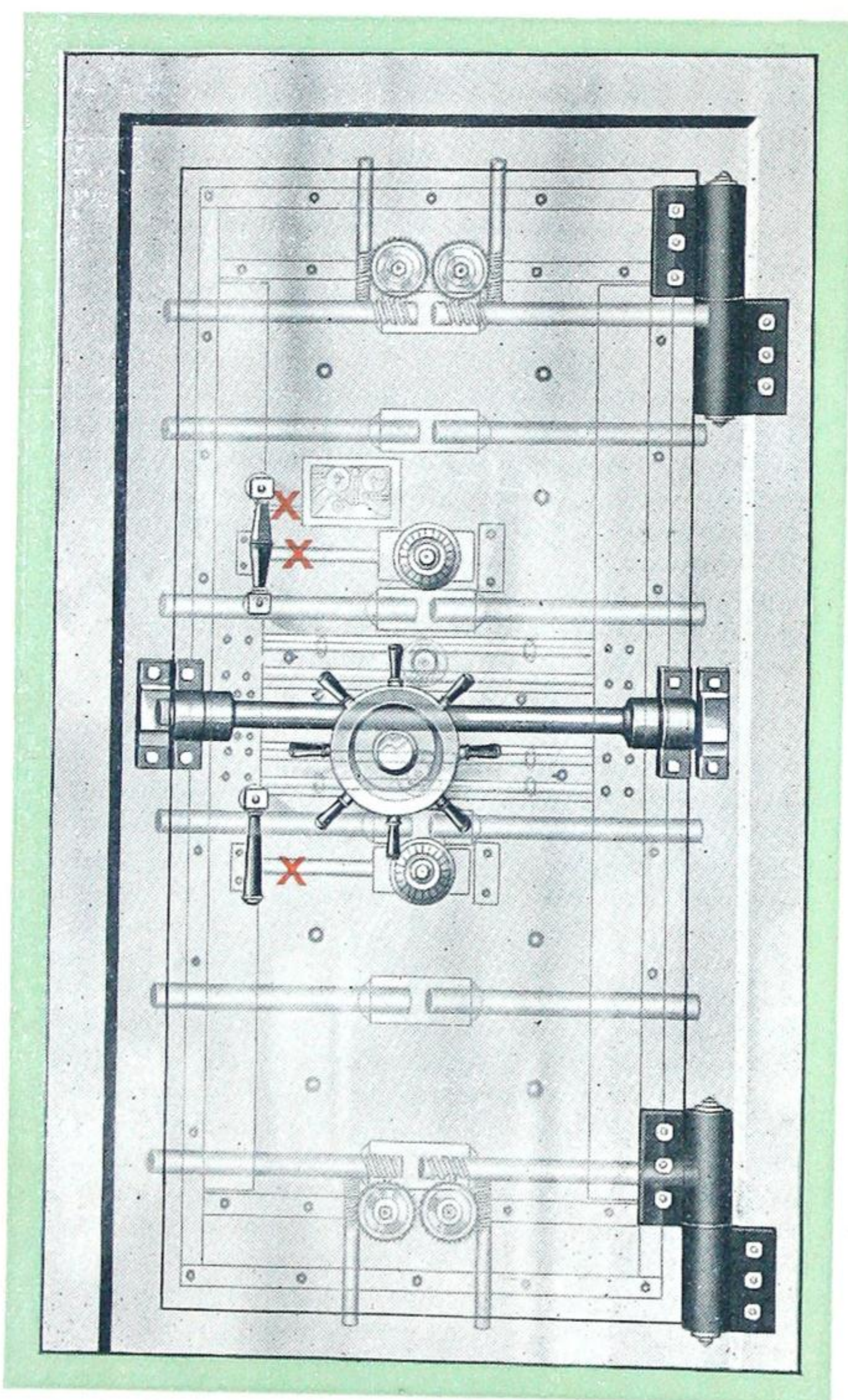


*A wall, such as illustrated, is a weak spot in any store, warehouse or manufacturers' premises. Wooden stripping placed on a wall protects it from entry by burglars.*



**Protecting  
Safety Deposit,  
Security and  
Money Vaults**

**S**OME may think it is unnecessary to provide protection for vaults having thick walls, massive steel doors, huge bolts, time locks and all the splendidly designed machinery for keeping burglars out. But one only needs to read of the many successful robberies of vaults and safes of financial institutions occurring in the past few years to know how essential it is to provide Electric Burglar Alarm Protection. The modern burglar has become skillful in gaining access to any vault. It is a fact, however, that no robbery of consequence has taken place in connection with a vault or safe provided with an approved system of Electric Protection.



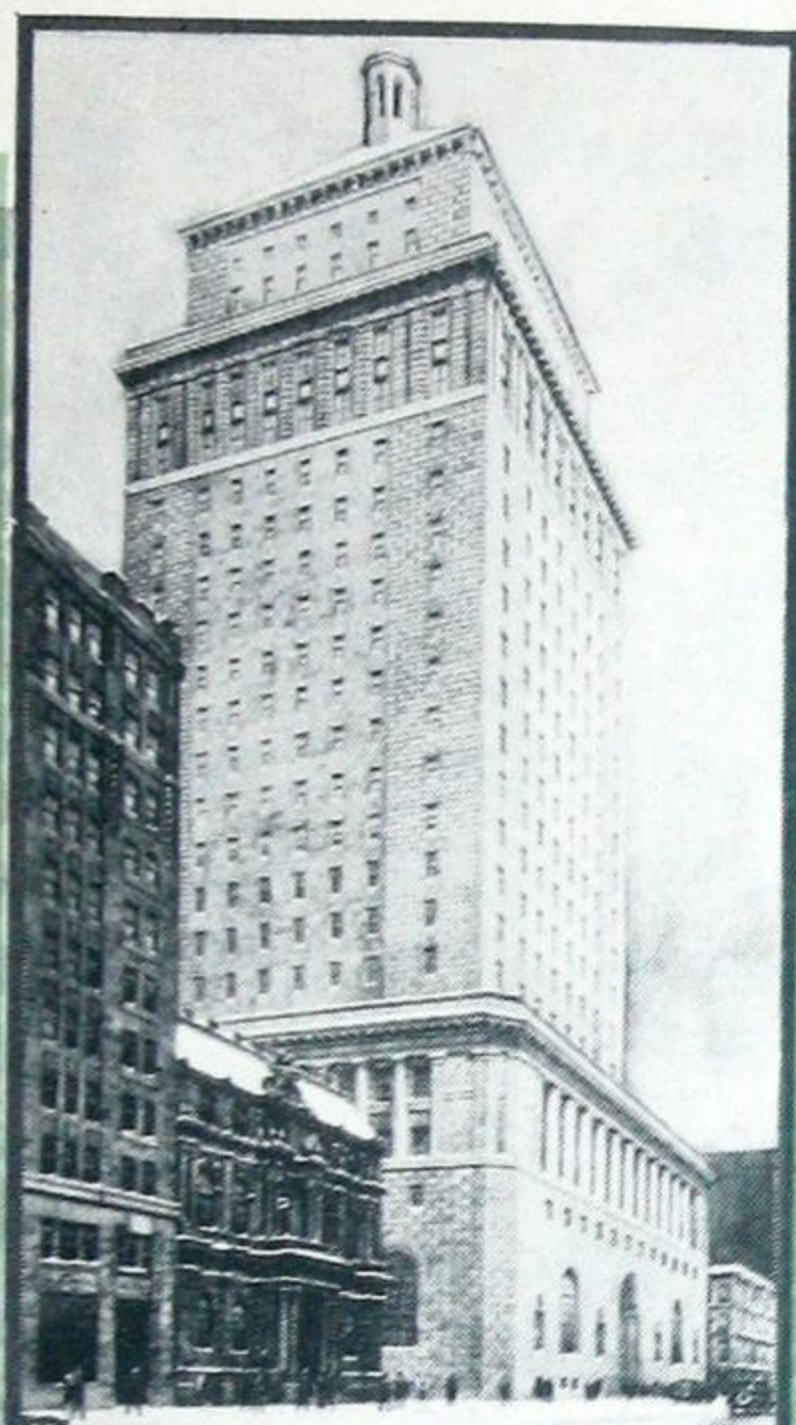
*An illustration of a typical security vault door showing the bolt-work system in connection with the combination and time locks on the side (shown in light gray shading as though the door were transparent). The places marked by the orange crosses are the points on such door where the yeggman, experienced in the use of the oxy-acetylene flame, would attempt penetration for the purpose of severing the connections, and thereby make the opening of the door possible.*

The system that we prefer ourselves and which is recommended by nearly all bank vault engineers is the placing of a specially constructed wire cable from two to three inches apart in the walls, the ceiling and the floors of the vault during the process of construction. In making an installation of this kind it is customary to attach the cable to the iron rods used as reinforcement, bringing the ends of the cable out to a terminal box. This means the cable becomes buried in the concrete and forms a permanent screen which cannot be penetrated without causing an alarm at the Central Office. This wire cable permanently buried in the walls, the ceiling and the floor of a vault is not subject to mechanical damage and will have a life practically as long as the vault itself.

The cable is also used in the same manner for the protection of the door. In addition, devices of a special design are installed that come in contact with the bolts of the door. This means of protection makes it impossible for anyone to open the door, tamper with the mechanism, or attempt to penetrate it in any manner without causing the alarm.



# BURGLAR ALARM SYSTEMS



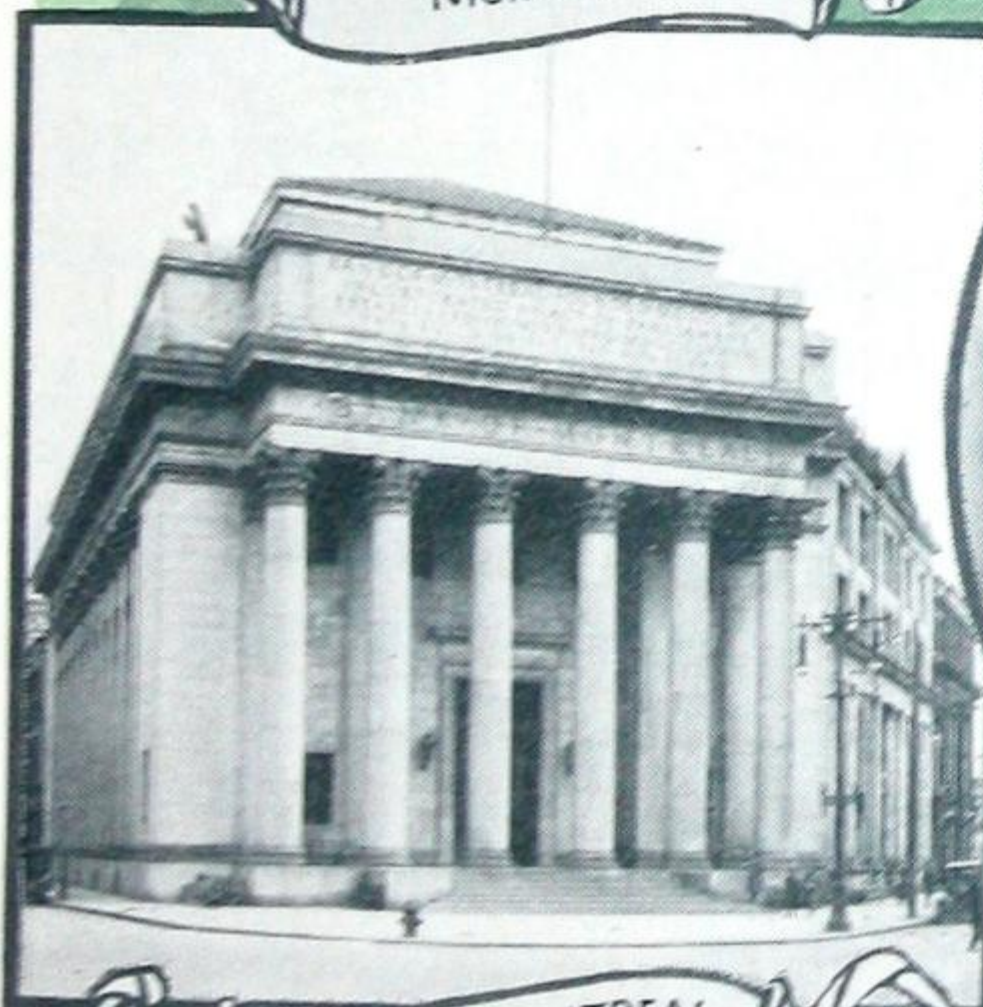
ROYAL BANK OF CANADA  
MONTREAL



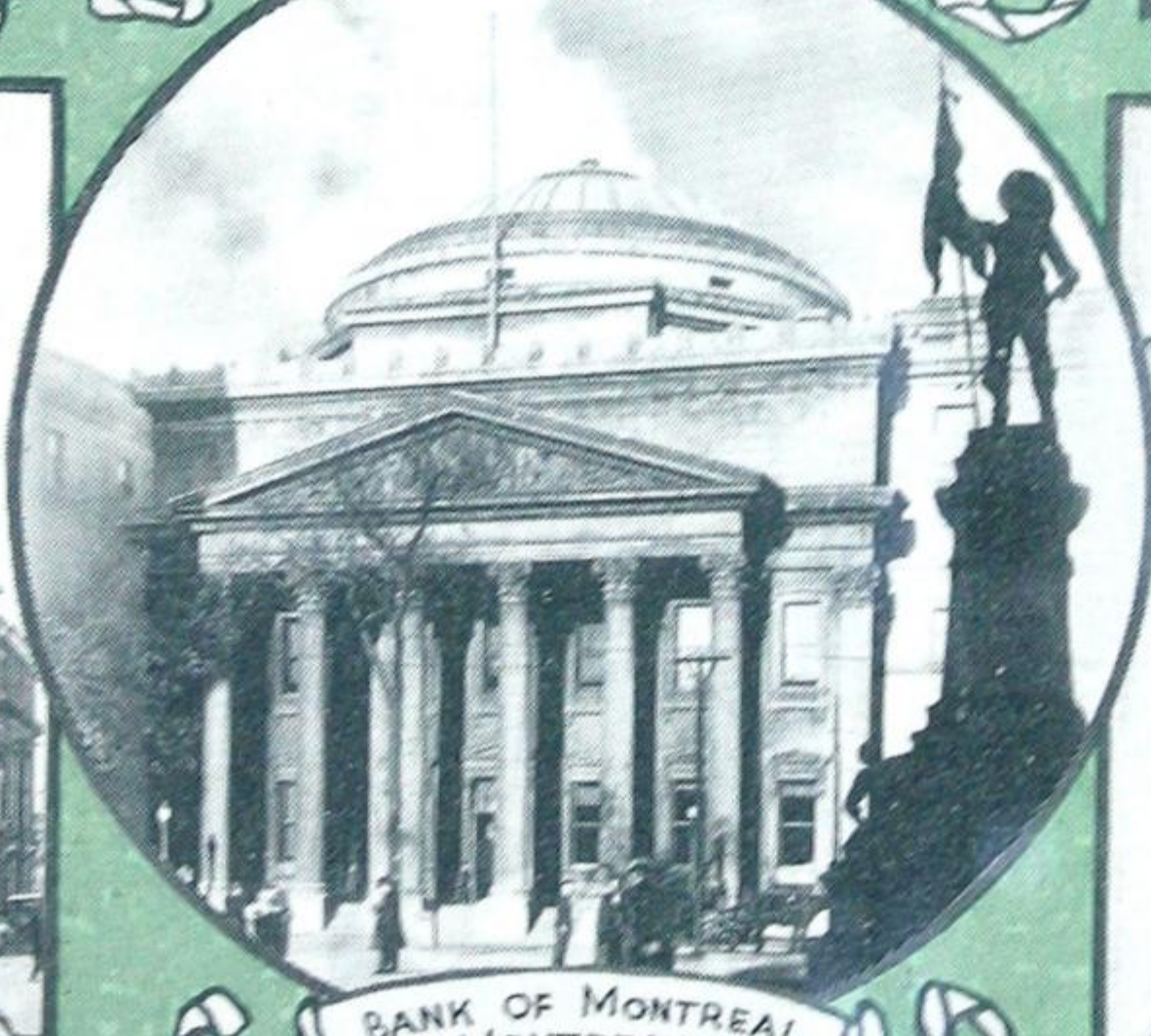
CANADIAN BANK OF COMMERCE  
TORONTO



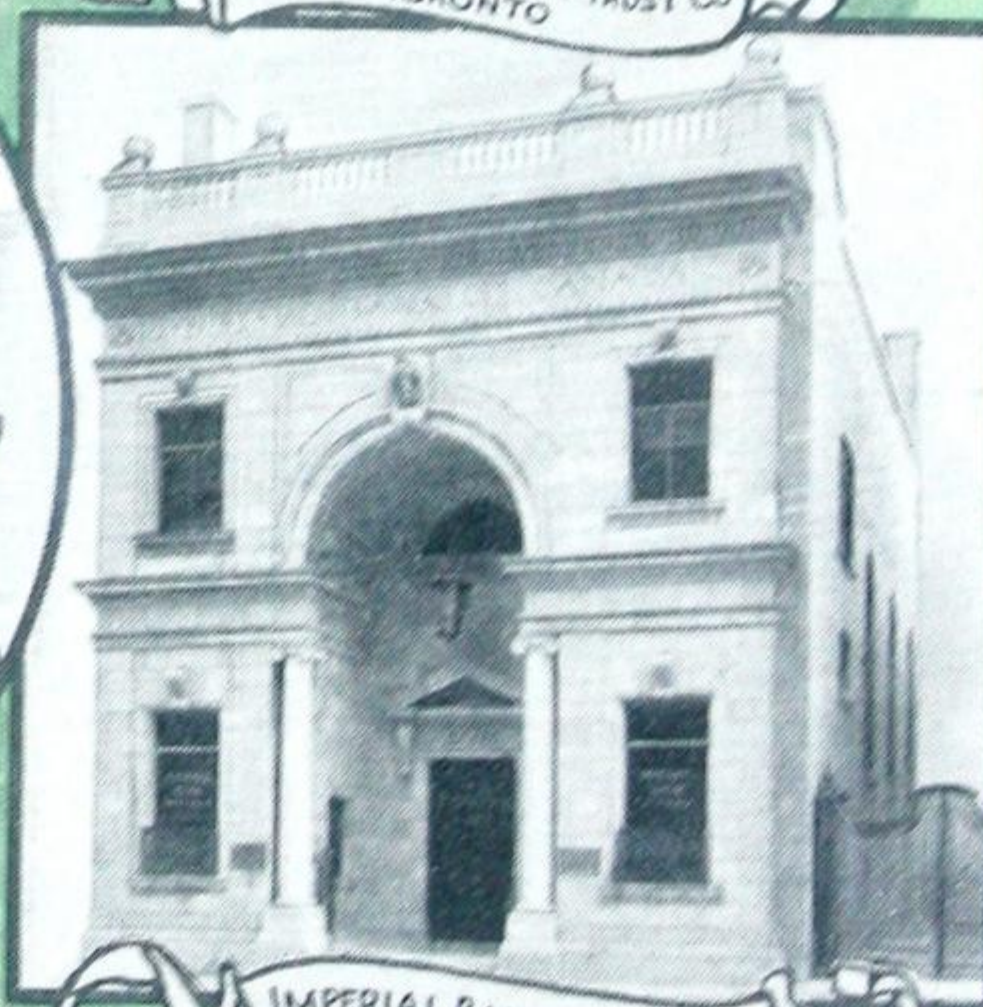
CANADA PERMANENT MORTGAGE  
CORPORATION  
CANADA PERMANENT TRUST CO  
TORONTO



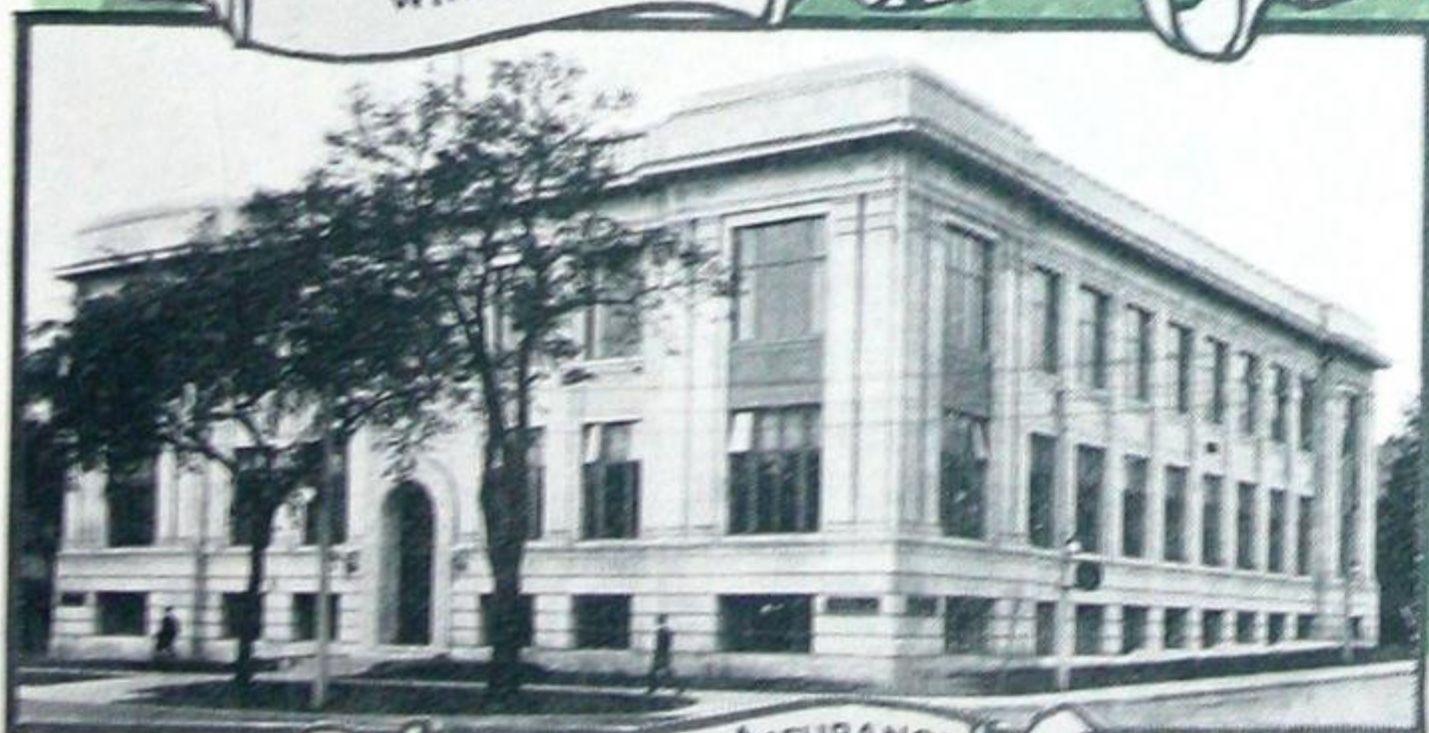
BANK OF MONTREAL  
WINNIPEG



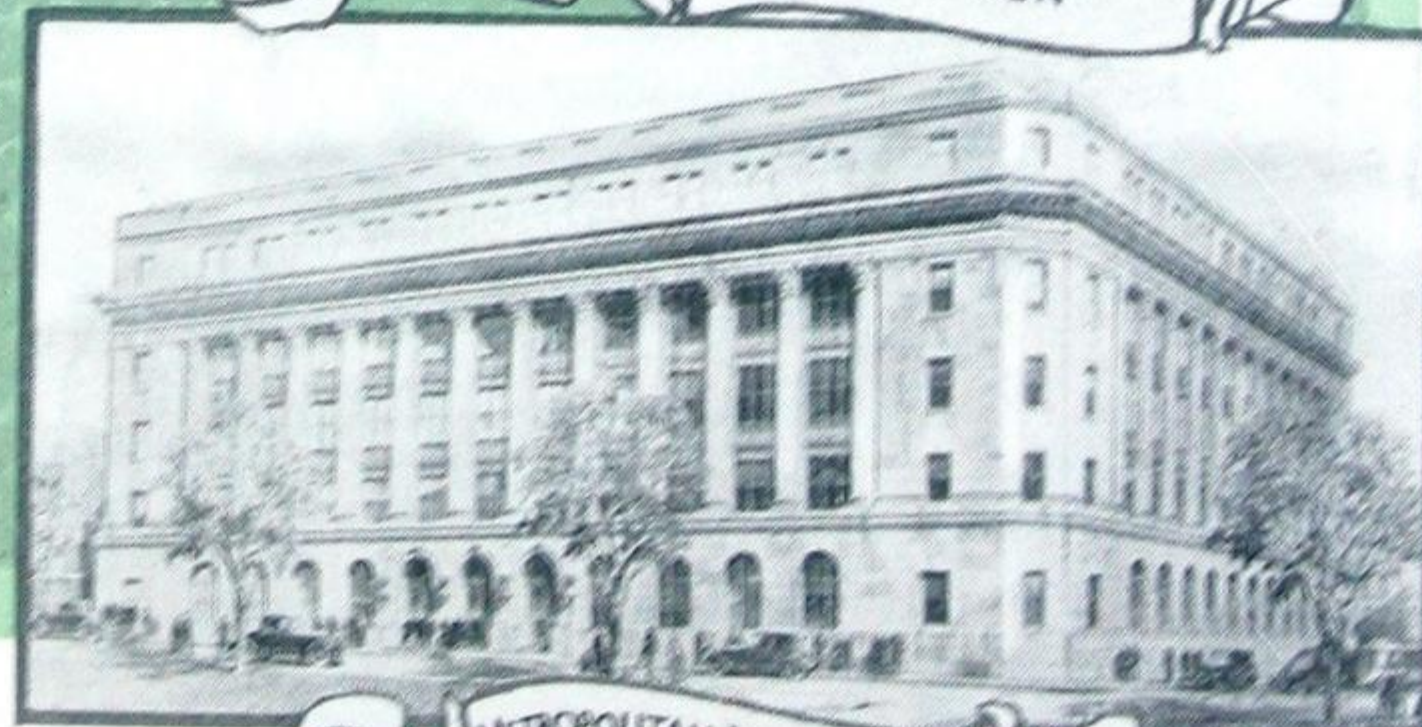
BANK OF MONTREAL  
MONTREAL



IMPERIAL BANK OF CANADA  
HAMILTON



NATIONAL LIFE ASSURANCE  
CO. OF CANADA  
TORONTO



METROPOLITAN LIFE INSURANCE  
COMPANY  
OTTAWA

*Prominent Banks, Insurance and Trust Companies employing Dominion Burglar Alarm Service for the Protection of their Security and Safety Deposit Vaults*

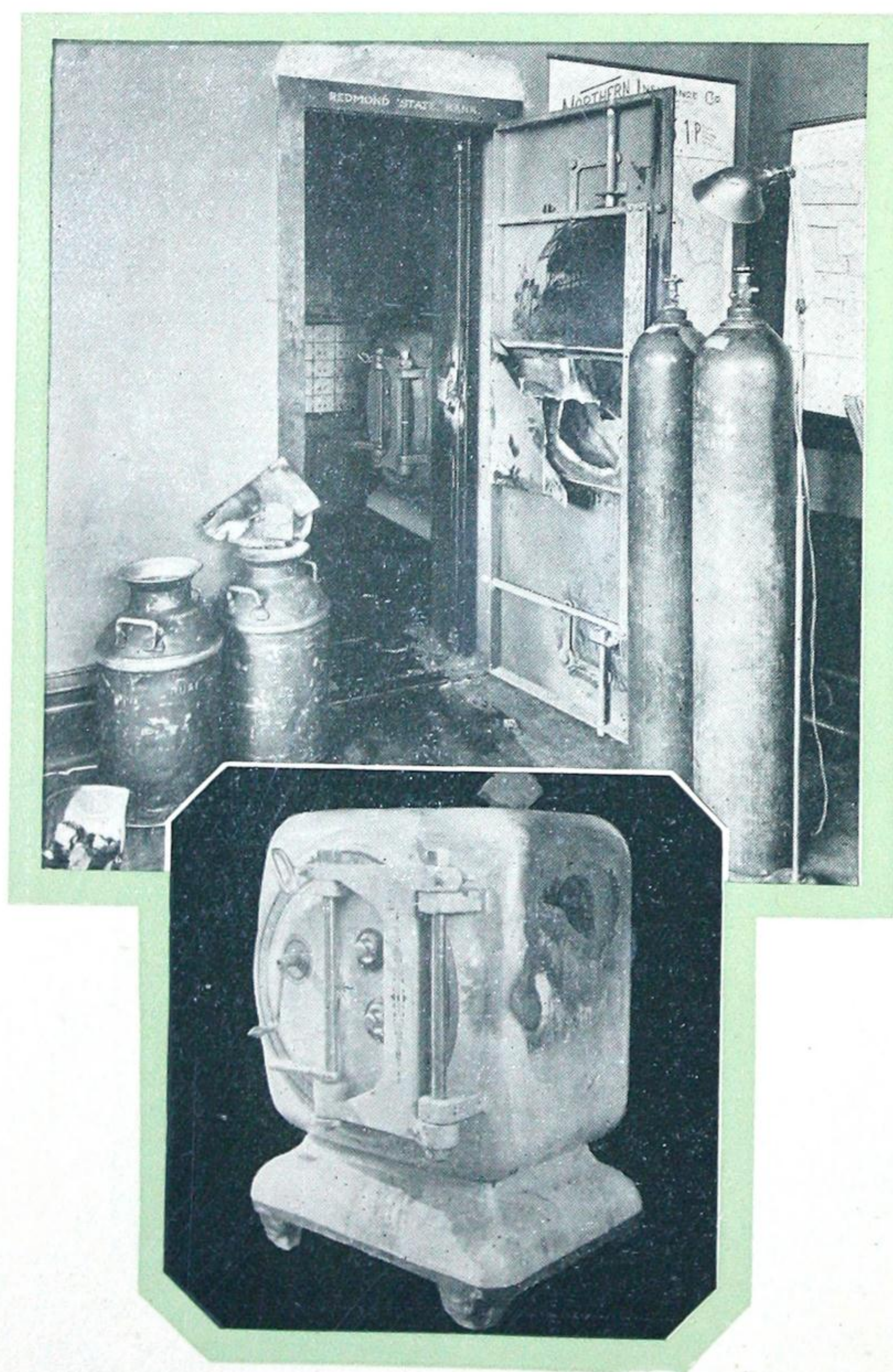


**Phonetalarm  
(or Sound  
Alarm) Service**

**W**HILE we advocate the system previously described in the case of new vaults, there are, of course, a great many Safety Deposit, Security and Money Vaults already in use and in connection with which the above system cannot be installed. For such vaults we have a system that is in use by several hundreds of banks, trust companies and other financial institutions, and is recommended by vault engineers,—the Phonetalarm or Sound Alarm System.

The Phonetalarm System of Electric Protection is comprised of certain sensitive instruments called detectors, placed on the ceiling of the vault. These detectors are in turn connected to other sensitive transmitting instruments which operate and send in an alarm to the Central Station when the least noise

or jar occurs in or around the vault. Two detectors are sufficient for a vault 20' by 20', and by means of a connection on one of the bolts on the vault the detectors are disconnected when the door is open in order that the noise caused by employees going in and out of the vault during the day will not affect them. As they are of the same principle as the detectaphone, with a supersensitive transmitter, the slightest noise gives the alarm. With this system it would be absolutely impossible for a burglar to work a road through the wall without giving an alarm at the Central Station.



*A convincing illustration of the possibilities of the penetration of a bank vault and safe by means of a high temperature gas flame in the hands of an expert yeggman.*

**Protecting the Vault Door**

For the protection of the vault door, devices of a special design are installed that come in contact with the bolts on the door. This renders it impossible for a successful attack to be made on the vault door, as tampering with the door mechanism controlling the bolts transmits an alarm to the Central Station.

In combination with bolt contact devices on the main doors of the vault, the Phonetalarm offers the financial institution every possible protection

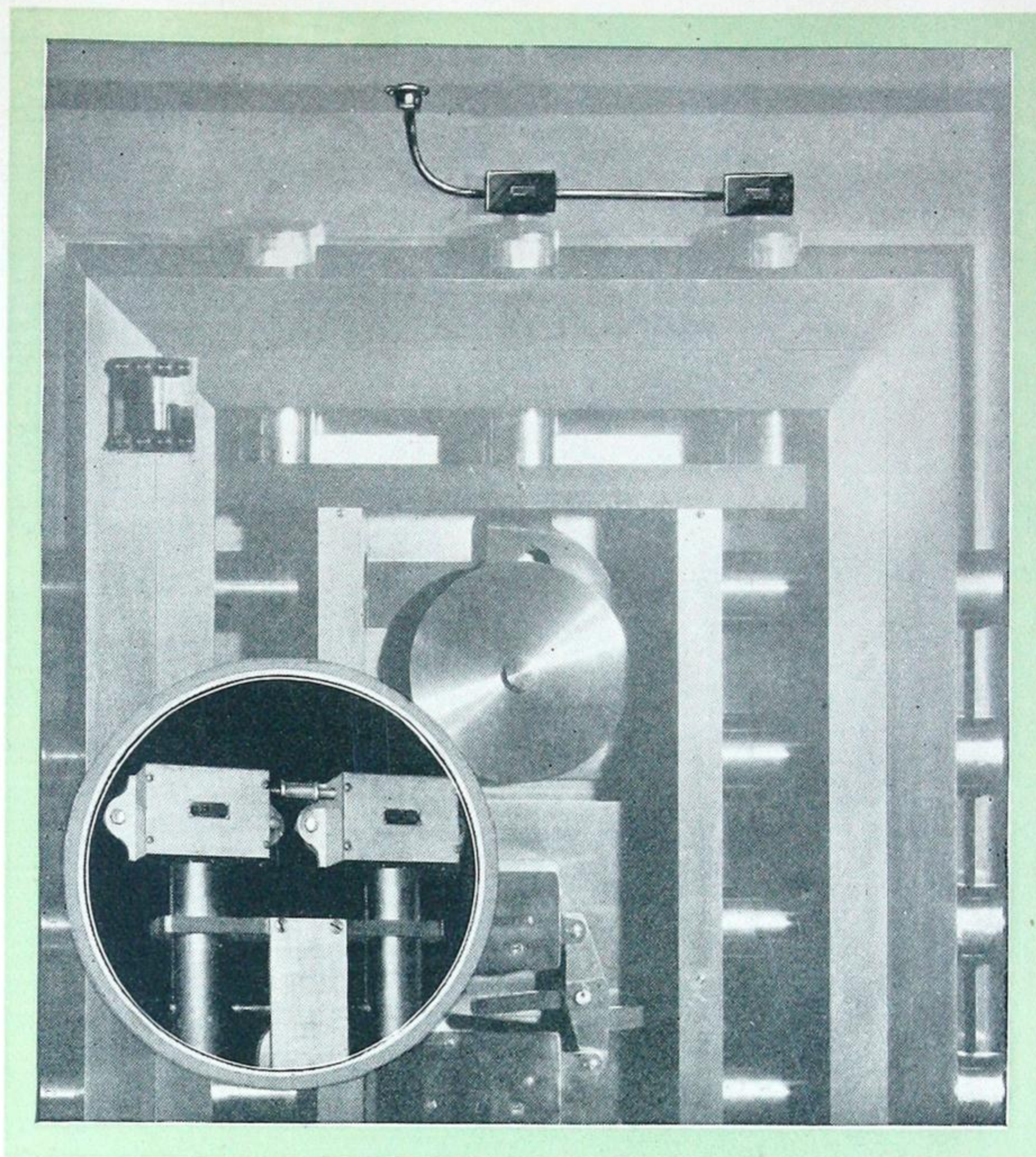


# B U R G L A R A L A R M S Y S T E M S

against burglary. This system is easily installed in large or small vaults without defacing walls, removing furniture or causing inconvenience to the staff or interruption to the routine business of the institution.

Another means of protecting the vault is by a vault front consisting of a hardwood frame in which is hung a set of swinging doors. This vault front is of a similar wood and finished to harmonize with the fittings and the interior woodwork of the bank or the financial institution having the protection. Within the frame and the doors of the vault front metallic conductors are laid which are connected with devices within the vault and thence with the delicate alarm devices at the Central Station. The vault front is ornamental in design and is set up as closely to the vault door as conditions will permit. Any attempt to open or penetrate the doors, penetrate or separate the vault front from the vault, results in the operation of the alarm. This method of protection is used when the door of the vault to be protected is of weak or flimsy construction or in some cases to avoid the partial destruction that would result from an attack on a vault door of high cost and complicated construction. While in the case of large and heavy vault doors the bolt contact devices are recommended, the special form of protection by means of a vault front offers an alternative that is quite as efficient in operation.

*Lower Right—Inside of a Safety Deposit Vault showing on ceiling microphone detectors as installed in connection with the D.E.P. Phonetalarm System. Any attempt to penetrate the walls, floor or ceiling of a vault so equipped by the use of an oxy-acetylene flame or other means would instantly sound the alarm in the Central Station.*



*Door of a Safety Deposit or Security Vault showing at the top the bolt contact devices. The opening of a door so equipped would cause the alarm to flash in the Central Station.*





## *Protecting the Safe*

For the protection of a safe a wooden cabinet is used which entirely envelops the safe. In the walls, the ceiling, the floor and the doors of the cabinet metallic conductors are laid which connect through sensitive instruments to the Central Station.

Any of the above mentioned systems of Electric Protection places the values carried in the money, security or safety deposit vaults under the protection of the Central Station from the time the vaults are closed at night until they are opened in the morning; also on Saturday afternoons, Sundays and holidays. If access is attempted through the door, or if an attempt is made to pierce any part of the walls or ceiling, the Central Station is instantly apprised of the fact by an alarm appearing on the instrument board. Officers are immediately dispatched to the protected premises and the police notified.



*A vault door protected from burglary by a wooden vault front or cabinet in which metallic conductors are laid, and which, in turn, are connected with devices within the vault and with the Central Station.*

In the writing of Burglary Insurance the Burglar Alarm plays an important role in securing a lower rate. In fact, in many cases the Burglary Insurance Companies have refused insurance where some approved system was not employed.

## *Constantly Connected with the Central Station*

Each system is connected with the Central Station, where a staff of experienced men is constantly on duty, prepared to respond instantly to any alarm. The electrical equipment at all offices is so sensitive that the slightest tampering with the protected premises will register an alarm at the Central Station and officers will be dispatched post-haste to ascertain the cause of the alarm.

## *Check on Employees*

Aside from making the vaults safe from burglary, there is also the advantage of having a check on employees entering or leaving the premises on nights, Sundays and holidays, thus



## B U R G L A R   A L A R M   S Y S T E M S

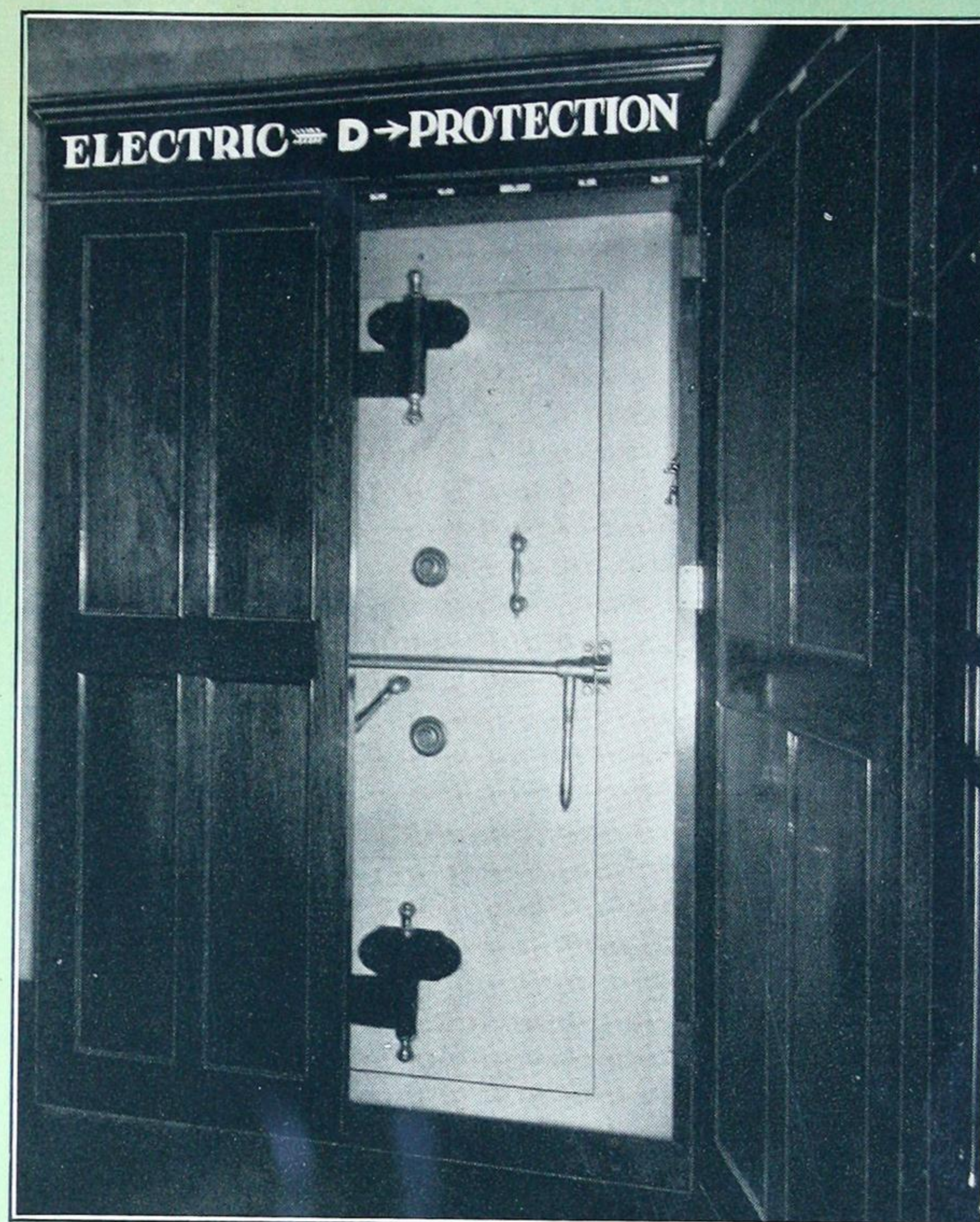
avoiding dishonesty and carelessness on the part of employees. Electric Protection can also save the employment of a night watchman, which might otherwise be necessary.

### *The Moderate Cost*

Considering the benefits to be derived from the Central Station Burglar Alarm Protection, the cost is comparatively small. The service is sold on a rental basis, with a moderate fee in addition to help cover the cost of installation. The Dominion Electric Protection Company installs the system and maintains it in proper working order.

### *Visit Our Central Station*

It incurs no obligation to visit one of our Central Stations, inspect the equipment and see at first hand the system in operation.



*A Safe equipped with a Burglar Alarm Safe Cabinet, so wired that any attempt to penetrate the cabinet would sound the alarm.*

### *Advantages of D.E.P. Central Station Burglar Alarm Service*

1. Flashes a signal to the Central Station if an attempt is made to enter protected premises.
2. System is "foolproof." A wire cannot even be cut or the system made inoperative without sounding the alarm.
3. Each system is connected to the Central Station by an individual wire.
4. Every alarm is thoroughly investigated by the Central Station officers.
5. The owner and the police are notified if necessary.
6. Furnishes a check on employees. Prevents carelessness and dishonesty.
7. In many cases lower insurance rates are granted.
8. Approved by the Underwriters' Laboratories as Grade "A" System.
9. The equipment is always under the supervision of D.E.P. experts and is manufactured and installed in accordance with Underwriters' standards.
10. It brings to owners and business executives "Peace of Mind and Security" procurable in no other way.





*Push Button—for operating the hold-up alarm by hand in connection with Central Station Burglar Alarm System. Push Button locks automatically after being thrown.*

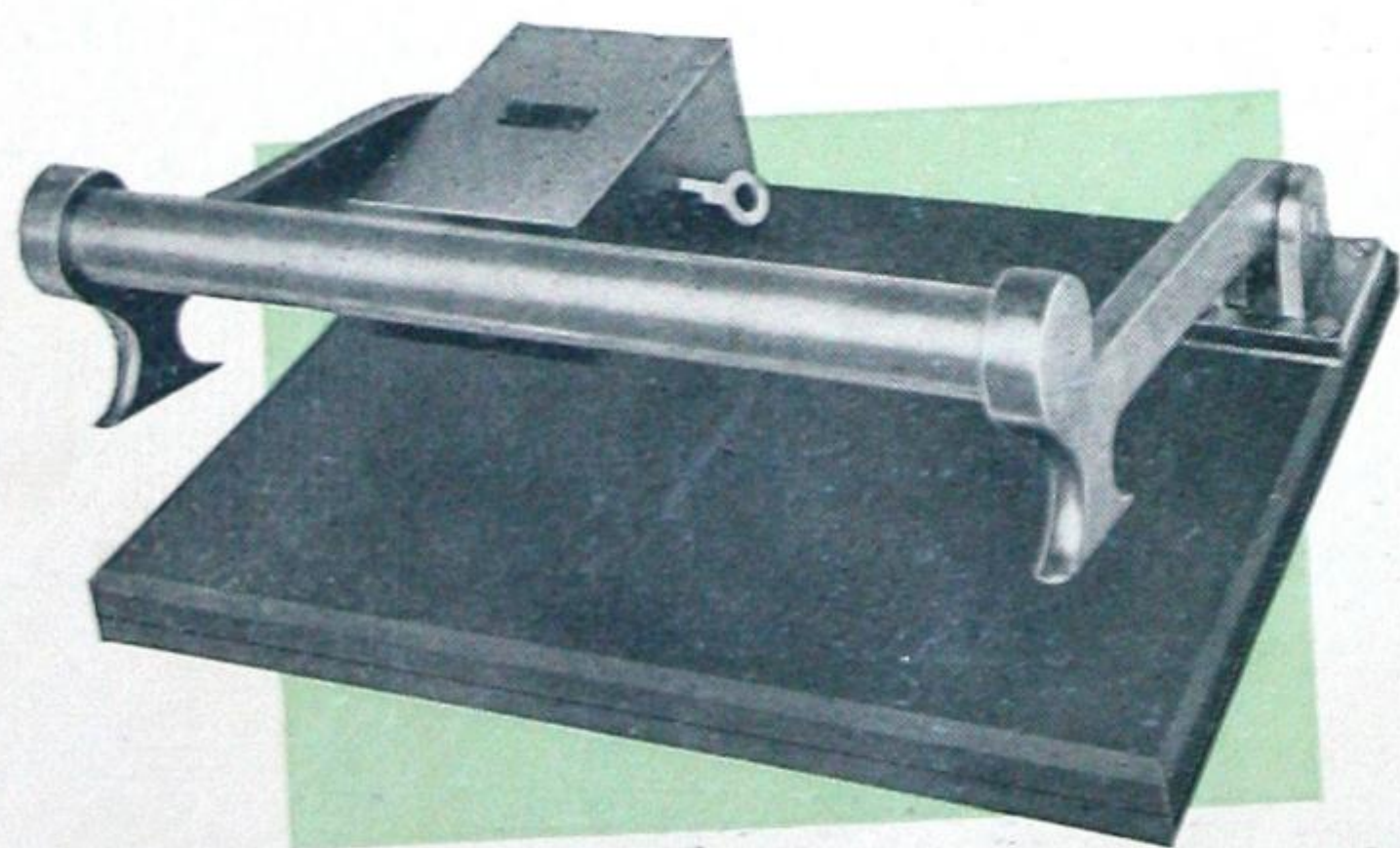
## *Police Call or Hold-Up Alarm System*

**T**O fill a much needed want the Dominion Electric Protection Company can offer a Hold-Up Alarm System for day protection. This system provides a safeguard if a hold-up is staged during the daytime, rendering it possible for sounding an alarm unnoticed from two or more locations throughout the protected premises and summoning aid.

The system has been especially designed for banks and other financial institutions handling large sums of currency and negotiable bonds which can be carried away in a few minutes' time. This system was designed for just such emergencies.

The Police Call or Hold-Up Alarm System consists of a number of special contact devices installed in tellers' cages, on officials' desks, in vaults and other places convenient for ready use. One of these devices is the Foot Hold-Up Rail, as illustrated. To sound an alarm the rail is raised by sliding the foot slightly forward on the floor and raising the rail with the toe or by allowing it to ride upon the instep. The other device is a push button, which can be operated like any ordinary push button.

In cities where this Company operates Central Station Service the system is connected directly into the Central Station, where there is always on duty a staff of trained operators. In the event of an alarm being received it is instantly relayed to the Police Department Headquarters over a private line, and in addition two guards are dispatched to the protected premises to assist the police officers.



*Foot Hold-Up Rail for operating from teller's cage hold-up alarm in connection with Burglar Alarm System. Lever operated by lifting with toe of foot, and when thrown is locked open and can only be reset by unlocking with key.*

The service is sold on a rental basis, with a moderate fee in addition to help cover the cost of installation. The Dominion Electric Protection Company installs the system and maintains it in proper working order.

The epidemic of hold-ups of banks and other financial institutions has caused much anxiety among executives who are responsible for the safety of their securities. In developing this system of day protection the officials of the Dominion Electric Protection Company feel that they are placing at the disposal of the Canadian banker and other officials a system such as has never been available in Canada before.





THIS SIGN APPEARS ON A  
DOOR OR A WINDOW  
WHERE  
**DOMINION PROTECTIVE SYSTEMS**  
ARE INSTALLED











